Morality on a leash: walking the dogma

A search for plausible connections between morality and biology

by
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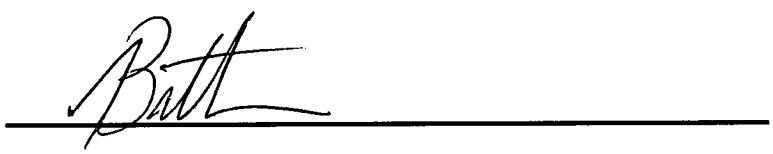

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Abstract

There have been numerous attempts to explain morality as a product of biology. These accounts however do not do justice either to the nature of morality or the biological mechanisms which are attributed to its origin. This thesis addresses these problems and provides an account which satisfactorily explains morality as the product of a number of human biological adaptations, but not as biological adaptation itself. As such it is a rejoinder to prominent sociobiologists Michael Ruse, E.O. Wilson and Richard Joyce who suggest the contrary.

This conclusion derives from a detailed exploration of morality as both a biological and cultural phenomenon that seems to have strayed far from the Darwinian evolutionary framework. Holding it back firmly, however, are a suite of emotions which are here argued to be a primary source of belief in the prescriptive, categorical nature of morality, a core feature of morality which distinguishes it from other human rules. This account of moral motivation is not a novel account. What is new, however, are the further conclusions that can be drawn from growing evidence for the neurological bases of these emotions. Of particular relevance to this thesis is the likelihood that emotions were not selected because of their role in generating morality. Rather, emotions appear to be prerequisite for functions such as familial bonding which predate morality. This hypothesis supports the main conclusion of this thesis.

The human emotional reservoir is not taken to be the sole explanation for why we have morality, however. Morality is a multi-facetted phenomenon which is also formed and influenced by active reasoning and more passive processes such as social learning. To demonstrate this, a significant portion of the thesis is devoted to considering the connection between morality and human sociality. This will provide subsidiary support for the conclusion that morality is a bi-product of a number of different biological traits, in this case selected in humans for their contribution to social learning, and kin bonding.

From these main areas of discussion, secondary conclusions emerge. Firstly, the biological basis of the capacities involved in the generation of morality is also used as the grounds for rejecting the commonly held belief that there are mind-independent moral facts. Secondly, the range and complexity of these capacities in humans will be used as an explanation for why morality appears to be a human phenomenon. Finally, it will be argued that the conclusions reached in this thesis needn't undermine the significance of morality in our lives: rather, morality requires redefinition which recognises both its true origins and its role in protecting and promoting that which is of utmost importance to us.

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Introducing the thesis

> ***...genes hold culture on a leash. The leash is very long but inevitably values will be constrained in accordance with their effects on the human gene pool. The brain is a product of evolution. Human behavior--like the deepest capacities for emotional response which drive and guide it--is the circuitous technique by which human genetic material has been and will be kept intact. Morality has no other demonstrable ultimate function (Wilson, 1978: 167).***

General Introduction

When Daniel Dennett wrote his epic *Darwin's Dangerous Idea*, he not only succeeded in conveying the complexities of Darwin's theory of natural selection, but also the enormity of its impact - including the controversies - that this theory generated. In his own words:

> From the moment of the publication of Origin of Species in 1859, Charles Darwin's fundamental idea has inspired intense reactions, ranging from ferocious condemnation to ecstatic allegiance – sometimes tantamount to religious zeal. Darwin's theory has been abused and misrepresented by friend and foe alike. It has been misappropriated to lend scientific respectability to appalling political and social doctrines...Almost no one is indifferent to Darwin, and no one should be (Dennett, 1995:17-18).

I will explore one such controversy in this thesis; the connection between human biological evolution and morality. In particular, my aim is to illustrate how this connection can be plausibly made. Traditionally, this has been the field of "socio-biology," a term which encompasses a broad range of attempts to explain social behaviour with reference to human biology. One of its main spokespeople, E.O.Wilson, set the wheels - or, in this case, the "dogma" - in motion when he

famously claimed that he felt that it was time "...for ethics to be removed temporarily from the hands of philosophers and biologicized" (Wilson, 1975: 27).[1]

My topic, then, is by no means original, but it is not a topic that has been widely appreciated. In fact, attempts to "biologicize" morality have often met with sturdy resistance both in the general population and also in the academic community for many and varied reasons.[2] Often, attempts to link morality and human biology are rejected because (A) they inadequately represent the multifaceted nature of morality and/or (B) they oversimplify the processes of human biological evolution. For example, in Part Three of this thesis I will argue that while Jonathon Haidt offers compelling arguments for the emotional basis of moral judgements, he does not pay adequate attention to the role of reason in making moral judgments: as such, I argue, his arguments succumb to problem "A" above. Richard Joyce, who also offers many highly plausible arguments for a connection between morality and biology, will nevertheless be criticised in this thesis for oversimplifying biological evolutionary processes (problem "B" above). For instance on the one hand he argues that moral judgements and rules "implicate" different biological mechanisms, (2006: 140) and that "...emotions are of central significance to morality" (2006: 51) thus implying that morality is the product of a series of biological mechanisms – a conclusion that this thesis supports. However, he then goes on to make the sweeping claim that "...morality is a distinct adaptation wrought by biological natural selection" (2008: 213).[3] In claiming this he misrepresents Darwinian selective processes since it is unclear how a "distinct adaptation" (as Joyce represents morality) could itself be the *product* of a number of other "distinct adaptations" (such as those implicated in the generation of the very emotions that he claims are "...of central significance to morality"). In suggesting this, then, he becomes guilty of the same kind of "simplistic thinking" which he himself specifically cautions against (2006, 140).

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[1] E.O. Wilson is considered by many to be the "father" of sociobiology, and in fact coined the term "sociobiology" in the first place in 1975. According to Wilson, " The central tenet of human socio-biology is that social behaviors are shaped by natural selection" (Lumsden and Wilson, 1981: 99)

[2] (See Marshall Sahlins' 1976 criticism of sociobiology, for example.)

[3] Note that while this quote (2008)comes from an article written two years after the earlier quotes(2006), suggesting that he might have changed his mind, the 2008 quote in fact comes from Joyce's own "précis" of the book in which the 2006 quotes were made.

One must not be too harsh, however. Joyce almost certainly means to be more specific in his claims about morality: by "morality", for instance, Joyce seems to mean what he refers to as "the moral sense," a concept that I will explore more thoroughly later in this thesis. Indeed, one of the difficulties that arise in discussing morality is that the term "morality" itself is a somewhat vague term which encompasses a range of different aspects and connotations: for example, when people use the term "morality" they might be referring to the "practice" of morality in terms of adherence to a set of rules or principles, or they might be referring to our beliefs about the *nature* of these rules and principles. In a bid to clarify what I mean by "morality," I devote the next section to exploring the term in more detail.

Another major obstacle in considering a connection between biology and morality is that conclusions are bound to suffer from the gaps in both our knowledge and understanding of human evolution and biology. Such difficulties do not constitute an adequate argument for the abandonment of such a project, however, but instead invite continued exploration, noting however that the best we can do is mount arguments based on the logic of inference to the best explanation.

I will take up the invitation, place morality back into the hands of the philosophers, and attempt to bridge gaps that appear in some of the more recent sociobiological explanations of the origin and nature of morality. In particular, I will argue that morality (in terms of both rules and concepts) emerged as a bi-product or "spandrel" (Gould and Lewontin, 1978) of a number of biological traits which themselves were selected for different, albeit related, advantages they conferred. This is in opposition to Richard Joyce (2006), for example, who - as we have seen - hypotheses that the evolution of a "moral sense" adaptation is central to an explanation of the emergence of morality.

However, while I will conclude that biological mechanisms are fundamentally implicated in an explanation of morality – and much of this thesis will focus on how

they are implicated – I will also argue that the role of environment must not be discounted. To this end, a significant portion of this thesis will also be devoted to exploring morality as not only the product of biology, but also the product of both the social and physical environment in which human beings have evolved. In particular, I will discuss the way in which human culture shapes the content of moral codes. This will illustrate my point that morality, while importantly linked to matters of survival and reproduction, is also linked to the promotion of values which have no obvious connection to these considerations.

These conclusions will be arrived at via a consideration of different approaches that might plausibly be employed in an attempt to explain morality as a product of human biology. Before going any further, however, we must clarify what we mean when we talk about "explaining" morality. The first step, of course, will be to specify what we might mean when we employ the term "morality" itself.

0:1 What do we mean by "morality"?

Morality is a central feature in the lives of human beings, constituting a powerful motivational and governing force in the interplay of their relationships. But while people seem to have little difficulty using the term "morality," when they do so they might often be talking about a number of different things, as I mentioned above. They might, for example, be talking about normative or metaethical matters, or they might be describing different elements of morality such as moral rules and concepts. Some of these aspects of morality will be briefly discussed here in order to set the stage for the way I will employ the term "morality" in this thesis and, in particular, which aspects of morality will be my primary focus.

Normative Issues

Firstly, when talking about morality one might be asking normative questions about the ends with which morality *should be* concerned. For some, morality is concerned

with consequences of actions (Utilitarians), while others are more concerned with the notion of duties (Deontologists). While this thesis will not be concerned with making decisions about which approach is the correct approach, what *would* be useful here is to talk about the central characteristic of morality to which these theories provide answers. In the words of Michael Ruse "Morality is about what we *ought* or *should* or *may* do" (1986: 69). Morality as such is about attitudes and sentiments that we *ought to* harbour, it is about rules we *should* follow, it is about behaviour that we believe we *may* perform. When asked why we ought to live, behave or "be" a particular type of way, the morally relevant answer will typically be that it is the "good" or "right" way to live: it is in *this* answer that we find the core of morality which traditionally distinguishes it from other basic rules and regulations that govern ordinary daily procedures. For example, if you would like to make a cake that rises, you ought to add a rising agent to the mixture. If you want to make a tree grow, you ought to give it water. For such actions, judgements of "good" or "bad", "right" or "wrong" are relative to the success or failure of a given venture; if the cake rises, you did the right thing, if the tree dies, then you most probably did the wrong thing *with regards to the goal you were aiming to achieve.* The "ought" in "you ought to give it water", then, is an "instrumental" ought, or, as Kant famously labelled it, a "hypothetical imperative" (Kant, 1993).

When it comes to morality, however, the answer as to why particular actions ought to be performed is generally given in terms of it being "good" or "bad" tout court. It is this kind of "ought" which represents for a lot of people the sense of inescapability of morality, an inescapability, moreover, which extends to others and is not just limited to ourselves (Brink, 1997). It is represented – as suggested above - by Kant's categorical imperative which, in his own words, "...declares an action to be objectively necessary in itself without any reference to any purpose." (Kant 1993: 78); helping people in need is a good thing to do not because it will lead to some desired outcome, but quite simply because it is the *right* thing to do and as such it is categorically binding. Even Utilitarians and other consequentialists who *do* prescribe actions on the basis of a desired outcome, do claim ultimately that the outcome, for

example "happiness," should be pursued because it is intrinsically good. Morality, then, represents more than a set of prescriptions; it also represents the common belief that these prescriptions are categorically binding, not just for the person prescribing the rule, but for *everyone.* In this thesis, I will undertake to explain how it is that we come to have this belief.

A third tradition in Western ethics might explain morality not in terms of what we ought to do, but rather in terms of how we ought *to be.* Virtue ethicists, as they are known, concentrate on the development of traits of character. Discussion of virtue has a long history, dating back notably to the famous ancient Greek philosophers Socrates, Plato and Aristotle. This tradition, however, is not at odds with the central characteristic of morality identified above (that morality is about "what we ought to do, be, think...") since developing moral virtues is essentially involved with these matters. Moreover, when asked why certain virtues are worth developing, we will almost certainly make appeal to the notion of their having intrinsic value.

Metaethical considerations

When we talk about morality we might be discussing metaethical questions about the *nature* of morality: that is, we might be trying to pinpoint what, exactly, it is that we are doing when we engage in moral reasoning, or make moral judgements. For example, morality is taken by some to refer to a set of objective mind-independent moral facts upon which we base our decisions and judgements (moral realism), while for others morality has no reality beyond the moral agent (moral subjectivism). Settling these questions will not be the focus of this thesis, but consideration of them will be made in Part Four once the more descriptive project of exploring the source of moral rules and concepts has been accomplished. This is because I argue (as others have done before me) that the metaethical status of morality is intimately linked with answers about the source of these rules and concepts: this "source", then, must be established first. One thing I do emphasise when I discuss morality throughout this thesis, however, is that moral realism is often implicit in the way we talk about

morality. As Michael Smith put it, "...we seem to think moral questions have correct answers, and that the correct answers are made correct by objective moral facts" (Smith, 1991:400).[4] In this thesis I will begin with the assumption that there are no such things as mind-independent moral facts, and then I will demonstrate how all aspects of morality (such as moral rules, beliefs, and concepts) can be accounted for without recourse to the actual existence of such facts. From this, I will draw the conclusion that it is highly plausible that they *do not* exist.

The different components of "morality".

Finally, the term "morality" itself can be used to describe a number of different things. By morality, for example, we might be referring to (A) the belief that certain specific thoughts and actions are morally right or wrong; (B) we might be referring to the *propensity itself* to believe that certain thoughts and actions are morally right or wrong; or (C) we might also be referring to morality as the ensemble of moral rules. Consequently, an attempt to "explain" morality as a product of human biology needs to take into account these different aspects and address them accordingly.[5] On occasion, however, I will use the term "morality" in a generalised way to encompass these different aspects, but I will be more specific when required. For example, in Part One I will explore the possible origins of certain moral rules. In particular, I will consider a somewhat traditional sociobiological conclusion that moral rules emerged as a human response to some of the problems arising from maintaining and managing human relationships of many types. I will conclude that while some moral rules can be considered fitness enhancing, the behaviour itself that is encoded by the rules is not the product of specific biological adaptations: rather, the moral rules are the

[4] Simon Kirchin also makes a similar claim. As he puts it, "I think that the intuition which I have developed briefly [independent moral realism] is present in many if not all of us to some degree and it may have a very strong hold on some of us" (Kirchin, 2000: 416). He describes Independent Moral Realism, in turn, as being a "strong" version of moral realism. For Kirchin, it encapsulates two essential claims about morality: (1). that there are such things as moral properties, and that (2).these are "mind-independent" which means that they have no dependence on human beliefs, desires or goals (Kirchin, 2000: 414). This is the view that this thesis will eventually oppose, while recognizing that it is, in fact, the way in which many people actually perceive morality.

[5] Unless, of course, one can convincingly argue that morality as a whole is explained with reference to one of these aspects in particular, as Joyce attempts to do.

product of human *decision* to include them as moral rules. The fact that people are able to make these decisions, however, is due to their possession of a series of evolved biological adaptations. In this sense, then, the moral rules and the behaviour they prescribe (or proscribe) are a bi-product of having a number of different biological traits, but are not adaptations themselves.

This, however, is far from the end of the story. Human moral rules are considered quite different to other rules that humans devise such as those that pertain to laws or etiquette. I will explain this in terms of the common belief that moral rules and judgments correspond to mind-independent moral facts which render certain thoughts, dispositions and actions intrinsically right or wrong, and as such, are categorically binding in something like the way Kant argued.[6] As John Mackie put it, "The ordinary user of moral language means to say something about whatever it is that he characterizes morally . . . [which] involves a call for action . . . that is absolute, not contingent upon any desire or preference or policy or choice"(1977: 33). Morality, in this sense, is not just a set of rules; rather, it represents a propensity to *see* these rules as somehow intrinsically right or wrong. In this thesis, I will account for this aspect of morality again with reference to a series of different biologically generated capacities - notably the capacities to reason and to experience emotions. Explaining the adaptive functions of some of these capacities is fairly straight forward (such as those that facilitate the bonding process between caretaker and child, for example). Others are less obvious, but speculation will be included here nonetheless. What does seem clear, however, is that reasoning ability and the human affective system are not adaptations evolved specifically for their role in generating either moral rules or, more specifically, belief that moral rules are categorically binding. This in turn, has metaethical ramifications. For in explaining the connection between the possession of these capacities and the generation of moral beliefs, we eliminate the need to postulate moral facts as an explanation for our beliefs since these beliefs are accounted for without reference to or need for the existence of such

[6] Here I am using Richard Joyce's simplification of the Kantian term to denote "an imperative that does not recommend a means to an end." (Joyce, 2006: 61) Each time the "categorical" nature of morality is referred to throughout this thesis, it is likewise in this sense.

facts at all. As such we meet Gilbert Harman's requirement for the type of explanation that would succeed in making moral facts redundant (Harman, 1977).[7]

The plausibility of the argument that there are these multiple routes to and multiple conceptions of morality will support one of the main conclusions of this thesis: that morality as a whole cannot be considered the product of a singular biological adaptation. Rather, both moral rules and the propensity to believe and be motivated by moral rules are the product of a whole suite of evolved traits in liaison with environmental factors. As stated earlier, then, this thesis will both contribute to and improve the arguments of other philosophers who have made important contributions to the exploration of a connection between biology and morality. Some of these positions will now be briefly sketched.

0:2 Some other approaches to the topic

Richard Joyce's *The Evolution of Morality* (2006) is an important work that comes under scrutiny throughout this thesis. One major area of divergence between my arguments and Joyce's work lies in Joyce's contention that humans have evolved a special adaptation – the "moral sense" - which accounts for the belief that moral rules are categorically binding: in his own words, "... humans have an innate tendency to make moral judgments."[8] For Joyce, this is more than a disposition which favours a particular act, per se, or an emotion which makes us desire the particular action, but rather it is something which leads us to feel that we "ought" to desire it; that is, it explains the "...movement from desiring something to finding it desirable" (2006:133). This evolved trait, in sum, instils the sense of *moral obligation.* In claiming that "morality is an adaptation", then, he is obviously implying that it is the moral sense which is the defining characteristic of morality. Joyce's hypothesis is very tempting; in particular, it provides a very neat explanation for how it is that we

[7] That is, an explanation for moral judgements and beliefs that does not appeal to moral facts.
[8] By innate, Joyce means "that the present-day existence of the trait is to be explained by reference to a genotype having granted ancestors reproductive advantage" (Joyce, 2008: 213). In other words, Joyce is claiming that this "tendency" is an adaptation.

make *moral* judgements. In this thesis I will argue that morality is more complex than Joyce has implied, however. I will also argue that there are many different adaptations - and not just one in particular – which are implicated in morality. For instance, I will argue that the capacities to both experience emotions, and reason are central to an account of what Joyce refers to as "the moral sense." While Joyce himself does not discount the role that other adaptations, such as those that give rise to emotions, have to play in morality, he nevertheless suggests the existence of something "extra" which enables the transformation from emotional reaction to moral judgement. The postulate of this extra adaptation, I argue, seems unnecessary in explaining this transformation.

Michael Ruse offers what has been referred to by John Collier and Michael Stingl as a "mischievous argument" (Collier & Stingl, 1993:.49) for what he takes to be the evolution of morality. In some ways, it is a position which is not significantly different from Joyce's, but it is less precise in terms of the actual postulation of a specific adaptation. For Ruse, what has evolved is a mechanism which gives us the "illusion" that morality is something objective. Without this illusion, he claims that morality "will not work". (1990: 66) At times, Ruse does not seem to refer to a generalized mechanism which creates this illusion, however, but rather refers to what he (and E.O.Wilson) call "epigenetic rules" which lead us to believe that "...certain courses of action are right and certain courses of action are wrong." (Ruse and Wilson, 1986: 180) and which in turn incline us to embrace certain types of behaviour and not others. In other words, he seems to talk about adaptation<u>s</u> which give rise to specific moral beliefs. He claims, for instance, that "We are moral because our genes, as fashioned by natural selection, fill us full of thoughts about being moral" (Ruse, 1991:504). This hypothesis is more in line with the arguments that will be offered in this thesis, as it does not refer to a single mechanism, but rather a plurality of mechanisms responsible for some of the beliefs that we might have with regards to morality. I will refer to some of Ruse and Wilson's arguments in Part One where, like them, I will focus on the role that incest avoidance mechanisms play in explaining some of our "moral beliefs."

Another way of approaching the connection between morality and biology is to argue that while morality is not an adaptation itself, it nonetheless serves as a means of enhancing our fitness prospects by enabling cooperation. This is a version of the famous social contract theory argued for notably by Thomas Hobbes which not only explains the emergence of moral rules, but explains their importance in terms of survival enhancement. According to this approach, Hobbes' "war of every man against every man" (Hobbes, 1651: 64) could be seen as a major threat to survival which is countered via the creation of moral rules. While Hobbes was not talking about a literal history of human beings, there is nonetheless some plausibility to the argument that moral rules have such a function. In Part One and Part Two this idea will be explored with the conclusion that while there is some merit to the argument with regards to many of our moral rules, on its own the social contract approach does not suffice to explain certain significant aspects of how we perceive morality. Accepting that morality does have a fitness enhancing role, and that humans have and continue to deliberately use morality to serve this role, will, however, contribute to my conclusion that morality is the product of a number of biological mechanisms. This, I argue, is because the ability to employ moral rules in such a way requires a number of biologically generated capacities, such as language, memory are rational reflection. I will discuss these in Part Two.

A positioning of this thesis in terms of the current literature would place it close to the writings of philosopher Neil Levy who takes what he himself refers to as a "middle course" between those that deny that evolution can tell us anything about morality and those that believe that biology can explain everything about morality (2004: 88). He believes that morality is essentially the product of adaptations selected for other adaptive functions (emotions, for example) that give us the impression that some things are "objective and unconditionally binding" (the moral concept). He then claims that we have "exapted" this impression and used it as a concept to judge other behaviour (2004: 86). Levy speculates that we are able to do this, because - amongst other reasons - we evolved the capacity to deceive ourselves

(2004: 84, based on arguments of Trivers [1985]). The strength of Levy's position lies in his pluralist approach which allows an active role for not only various emotions in generating belief in moral rules, but also the role of reason. This allows a more comprehensive view of morality which adequately represents both the process of biological evolution and the multi-facetted nature of morality.

0:3 Summary of major sections

I have suggested that morality is the product of the interplay of aspects of both human biology and the environment. In order to support these claims, I will examine evidence drawn from the history of human biological and cultural development in a bid to reveal the nature of morality as a human construct born of behavioural plasticity and aimed at securing what humans desire, and/or believe they require from life. As I will not be suggesting that there is any one biological mechanism or environmental factor that is uniquely responsible for generating morality, my hypothesis will require a rather elaborate exploration of the various contributing factors. In section 0:2, I suggested that the term "morality" has different connotations. I suggested, for example, that when we use the term we might mean (A) the propensity to believe that specific actions (thoughts, characteristics...) are morally right or wrong; (B) we might also be referring to morality as the ensemble of moral rules or (C) the belief that there are thoughts and actions which are morally right or wrong in general. These key elements of morality will be separated and analysed in turn. The first three parts of this thesis represent each of these key elements. A fourth part will briefly consider the metaethical status of morality. These parts are further divided by chapters and the chapters by subsections. At the end of these four parts I have provided a final chapter which will serve as a detailed synthesis of the main conclusions I have reached in this thesis.

Part One

In Part 1, I will begin with the observation that morality is concerned with how humans behave and think. The principal issue addressed in this section, then, will be the determination of the forces which govern our behavioural propensities. To this end, the search for a plausible connection between biology and morality will begin at the most basic biological level: the gene. I will argue that while behaviour is influenced by our genomic composition, behaviour is most accurately portrayed a "multilevel" affair which is influenced to a greater or lesser degree by the interdependent relationship of genes (nature) and environment (nurture). Recognition will be made, however, of the fact that certain behaviours will be influenced more heavily by one or the other, depending on both the type of behaviour in question, and the type of organism exhibiting the behaviour. Finding a connection between morality and biology, then, will require determining where moral behaviour sits on the nature/nurture spectrum. A practical way to investigate this is to place it at one end of the spectrum in order to see if it is adequately explained in that way.

To this end, the second chapter of Part One will begin my consideration of whether it is possible to consider morality to be a biological adaptation that has been selected because of its contribution to the biological fitness of the individual. The first thing I note in this chapter is that if morality is to be thus conceived then it is important to consider we mean by "morality" in this context: is it, for example, certain types of behaviour (or, more accurately, biological mechanisms which produce the behaviour) that we then formalise into moral rules, as Ruse and Wilson have suggested; or is it the sense that moral rules are categorically binding, as Joyce suggests. I will consider the first of these options in Part One and illustrate why, when taken alone, this position inadequately represents morality.

The first step will consist of isolating possible candidates for consideration *amongst* the various moral rules. I will do this by choosing from a series cross-culturally

common moral rules. This approach is in keeping with the suggestion that universality of particular behavioural traits (such as, the propensity to avoid incestuous relationships) may point to a biological origin, since organisms of a given species generally share a large portion of their genome. I will explore the incest taboo first and conclude that while incest aversion has a weak but definite biological basis, a cultural explanation provides a more comprehensive (and thus plausible) account of why we morally condemn incest.

Altruism towards kin is the second candidate that I consider. This is because there are very good explanations for how altruistic behaviour towards kin can plausibly be attributed to biological mechanisms evolved to ensure that our genes survive into future generations. I will conclude, however, that the connection between these mechanisms and a moral rule which prescribes kindness to kin itself is more one of subject matter rather than a derivation of the latter from the former.

Finally, I will argue that even if we do at least concede that biological mechanisms might contribute to the belief that kin altruism is morally desirable, or incest morally condemnable, we are far from explaining the existence of the entirety of what are considered moral rules, especially considering some of these rules proscribe the behaviour favoured by some of these mechanisms (such as, ironically, moral rules against nepotism).

At the end of Part One, morality will be placed on the other end of the nature/nurture continuum to see if "nurture" or environment serves as a better explanation for the existence of moral rules. The principal "environment" that I will discuss is the social group into which one is born. Here I will adopt a fairly traditional social contract line of reasoning to illustrate the various ways in which morality serves to help maintain relationships within the group. For example, I will consider a social or "cultural" explanation for why incest taboos might be imposed, thereby supporting my earlier contention that incest taboos are cultural rather than biological products. I will, nevertheless, link morality back to biology. I will argue, for instance, that

cohabitation enhances human survival prospects as long as conflict is minimised and cooperation is maximised. I will then suggest that the imposition of moral rules is one of the ways that these ends are achieved. Consequently, while the moral rules are not biologically selected traits, they nonetheless contribute to enhancing our biological fitness.

Part Two

In Part Two, I will argue that while morality's contribution to social cohesion is undeniable, an argument which explains morality *uniquely* in terms of this contribution is inadequate in a number of important ways. To begin with, it does not explain the variability of moral rules cross-culturally. In Part Two, I will partially account for this variability with recourse to the various attributes of human life that have come to be known collectively as "culture." In particular, I will illustrate how it is that different cultures shape morality in accordance with the needs, wants, traditions and beliefs that constitute them. This will contribute to my claim that morality is a product of human biology by revealing the ways in which moral rules are shaped by the requirements and circumstances of human life.

While such a descriptive enterprise is informative, it still does not tell us much about the mechanics of the process, however. The next step, then, will be to explore how it is that morality has been able to develop in conjunction with human culture. I will conclude that morality and culture are in part bi-products of a number of capacities which play a role primarily in the development of social learning and social coordination, which are pivotal to the successful group living. Amongst those briefly discussed will be the capacity for imitation, learning and language. I will emphasise in particular the ways in which these abilities have enabled humans to pass from being passive inhabitants of their environment, to active manipulators of their environment. Of particular note is the evolution of traits which have enabled humans to create, transmit and apply rules – including moral rules - which manage relationships amongst people in the group. This observation, however, leads to

concerns about how it is that we differentiate the ordinary rule from the moral rule. I will provide the beginnings of an answer here by suggesting that *moral* rules represent, in part, the beliefs we have about the world, its significance and "meaning" and the values that these beliefs generate. The importance we place in these values explains why we might seek to "objectify" them. This, I will argue, in turn explains why our moral rules are no longer uniquely concerned with prosocial considerations. I will also suggest that moral concepts wield a certain power and authority and may have been employed in part for this purpose.

Part Two, then, will constitute a significant step towards establishing another plausible connection between morality and biology. This will be achieved via the contention that the ability to form, apply and transmit moral rules is the product of a whole range of different biologically generated capacities. It is, however, social learning and coordination - and not the moral rules -which are the functions for which many of these capacities appear to have been selected. As such, they cannot be considered adaptations for morality; morality, rather, is the bi-product of having these capacities.

Part Three

In Part Three, I will examine the issue of moral motivation. In Part Two, I suggest that moral rules may have developed as a predominantly cultural phenomenon in the service, partially, of the evolutionary end of promoting individual survival. These rules - which in Part Three I will refer to as "public morality" - arose alongside the groups they helped to bind and include a wide range of sanctions. The difficulty that arises from such account, however, is that it does not explain the *categorical force* of moral rules which was earlier identified as being central to morality.

In Part Three I will propose that our belief in the categorical force of moral rules and judgements issues from a number of different sources, including our social milieu (which tells us what is morally right and wrong); our reasoning ability (which helps

us to decide whether these rules are justified) and our emotional experiences (which allow us to experience certain moral rules as right and wrong). These sources also provide, in different ways, the motivation to uphold these binding rules.

Firstly, I will argue that motivation to *uphold* moral rules is provided in part by systems of social rewards and punishment implemented in social groups. This may include both tangible punishments and rewards, such as prison sentences, or public decoration, and non-tangible punishments and rewards such as reputation enhancement or debasement. I will argue, however, that this source on its own is drastically incomplete as an explanation for *moral* motivation in general. In particular, it does not fully account for how it is that we are motivated to perform actions which have little or nothing to do with prosocial behaviour at all. For example, sometimes moral rules sanction beliefs and behaviour that are completely divorced from human survival requirements. I will use vegetarianism as an illustration of this point. More importantly, however, I will argue that while systems of reward and punishment may encourage a certain subset of behaviours, as a complete explanation for motivation it ignores what for some is considered to be the core of moral motivation; the belief that certain behaviours (for example) are irreducibly wrong or right and that recognition of these "truths" provides the requisite motivation for their performance.

I will attempt to explain these beliefs without recourse to "ultimate truths", but rather as an expression of both our emotional reactions to and rational considerations of the world around us. Here I will consider Richard Joyce's hypothesis that we have evolved a special "moral sense". I will reject this hypothesis on the grounds that the belief that morality is categorically binding can just as plausibly – if not more plausibly – be explained with reference to the traits which enable us to experience emotions and to reason. This will complete my argument that morality cannot, in any sense, be considered a biological adaptation.

Part Four

In this part of the thesis, I will briefly discuss the metaethical implications of my thesis. I will begin by providing a basis for my assumption that there is no such thing as mind-independent moral facts. I will then discuss the "error theory" made famous by JL Mackie. Here, like Mackie (and Ruse and Joyce, for that matter) I will conclude that a belief that morality corresponds to a set of categorically binding mind-independent moral facts is erroneous. This, however, does not render morality itself illusory, as Ruse correctly argues (Ruse, 1986:252-255). For while this thesis will focus on demystifying morality, it will not do so at the expense of morality. Instead, I will argue that morality needs to be redefined in a way that recognises its role as representative not of a set of mind-independent moral facts, but rather of a group of rules aimed at protecting a number of shared and personal values. Finally, I will briefly consider whether or not other animals have moral rules.

Synthesis and General Conclusion.

This chapter will comprise a synthesis of the main conclusions drawn throughout the thesis, as well a brief general conclusion.

0:4 Summary of major conclusions

- Certain moral rules, such as those that prohibit incest and those that encourage altruism towards kin, coincide with biological mechanisms which both disincline and incline us respectively towards these same actions. The fact that they are moral rules, however, cannot be explained solely with reference to these adaptations. (Part One).

- Certain moral rules can be considered *fitness enhancing* in terms of the role they play in enabling humans to live together in groups harmoniously (itself a fitness enhancing way of life for humans). (Part One).

- Consequently, there are a number of moral rules that are cross-cultural, since the bulk of the problems that arise in human groups revolve around the universal problem of sharing limited resources amongst individuals. (Part One).

- Cross-cultural moral variety can be partially explained with reference to the differing environments in which people live. (Part Two).

- Morality is the fruit of our ability to formulate, transmit and be motivated by a number of different rules that we consider to be categorically binding. These abilities derive from a series of evolved biological mechanisms. (Parts Two & Three).

- As the process of formulating, transmitting and motivating moral rules calls upon a whose range of different biological traits working together at times, and alone at others, it is not plausible to maintain that morality is the product of a single biological adaptation. (Parts Two & Three).

- That moral rules are perceived to differ from other rules is often because they are (mistakenly) believed to derive from objective, mind-independent moral facts – as such they are considered true not just for ourselves, but for everybody. This belief provides motivation to uphold moral rules for many people and as such is a core feature of morality. (Part Three).

- Our tendency to make moral judgements that we consider categorically binding is not, contrary to the suggestions of Richard Joyce, the product of a biological adaptation. Rather, it is the product of a number of different

biological traits in combination with a range of environmental factors. In particular, our belief that the moral judgements we make are categorically binding springs from or is reinforced by a number of different sources including (A) inculcation by one's social group (B) emotional experiences of an intrinsically pleasurable or painful nature, and (C) rational reflection. (Part 3).

- While we might believe that moral rules derive from objective, mind-independent moral facts, we are mistaken in doing so. This claim is supported by the fact that the sources of this belief do not require the truth of moral rules to explain why we believe them (Part Four).

- While belief in objective mind independent moral facts is erroneous, this does not entail that we should eliminate moral concepts or rules. Moral concepts and rules express, promote and protect what we consider to be deeply important beliefs, needs and desires. If morality can be redefined to exclude reference to moral facts and to include considerations such as these, it regains an important role. (Part Four).

- It is highly unlikely that other animals have morality. (Part Four).

Part One: Morality and Biology

General Introduction

> ***The nature/nurture dichotomy is so dead and buried that it is wearisome even to mention that it is dead and buried (Joyce, 2006: 8).***

In this thesis I will be arguing that morality is ultimately both the product and servant of human biology. This argument will also serve as the basis for a secondary conclusion: that our belief in the prescriptive, categorical nature of moral principles needn't be explained with reference to mind-independent moral facts. To support these conclusions, I will elaborate a plausible hypothesis which explains how a suite of biological capacities, rather than a single innate trait - or adaptation - have been instrumental in both the formation of moral rules and in the generation of motivation to uphold these rules.

The first thing to note is that one needs to take care in *how* morality is explained as a product of human biology. For while this is not a novel approach, recent treatments of this proposal have tended to oversimplify morality and/or human biological processes. In this thesis I will endeavour to fill some of the explanatory gaps that other attempts have left open by presenting arguments linking between morality to biology that represent the connection more accurately. In particular, this thesis will provide a response to philosophers such as Richard Joyce who have suggested that morality is an adaptation.

The complexity of both morality and human biology entails that an explanation of connections between the two is likely to be rather long and complicated. To facilitate matters somewhat, I will draw out and discuss different aspects of each - and, importantly, how they are connected - piecemeal throughout the three major parts of this thesis. Part One, for instance, will start by introducing aspects of human biology relevant to establishing this connection. This will entail that the discussion in this

initial section will seem at times to wander far from philosophy. In order to properly introduce key concepts, however, this excursion is unavoidable.

To begin with, I will briefly examine the biological foundation of many human traits – the gene – so as to highlight misconceptions that surround the term, particularly in terms of its autonomy in determining behaviour. In the following chapter, I will consider the claim that certain moral prescriptions are the cultural formalisation of specific biological mechanisms which incline us or deter us from performing certain actions (Ruse and Wilson, 1986), focusing in particular on moral rules which exhort us to be kind to kin, but to avoid having sex with them.

The following main conclusions will be drawn:

- Firstly, the way organisms develop, function and behave is the product of the interplay between the environment and the genome. To speak then of morality in any sense as being biologically *determined* is misleading and is representative of the type of error generated by a perception of human behaviour as uniquely the product of either side of the artificial division known as the "nature/nurture" divide.

- Secondly, while biology is almost certainly implicated in the formation of moral rules, it is not uniquely via the evolution of distinct biological mechanisms that predispose us to act (or refrain from acting) in ways that we then formalise into moral rules. Rather, morality might be required in order to oblige us to behave in ways that we otherwise might *not* be inclined to behave, but which might nonetheless prove biologically advantageous either directly or indirectly. Humans meet these requirements by creating rather than merely formalising some of the moral rules themselves.

- Thirdly, morality can nonetheless partially be accounted for in terms of its contribution to boosting human survival chances (like an adaptation) though

not because it is an adaptation itself. I will argue instead that as group living is a fitness enhancing way of life for humans, moral rules that contribute to group cohesion will also be beneficial to our survival prospects. For example, moral rules often facilitate and encourage cooperation by limiting self-serving behaviour that may incite conflict. To illustrate, I will give examples of different ways that moral rules serve to bolster cooperation and inhibit aggression. With respect to this point, my thesis accords with aspects of certain contractual accounts of morality (Hobbes, for example). It differs, however, with regards to the next point.

- My fourth point is that an explanation of morality solely in terms of its social utility only *partially* explains the developmental story of morality: morality is far more complex than the prosocial portrait sketched in this part will provide. These complexities will be addressed in the subsequent chapters of this thesis.

Chapter 1: Genes and morality

Introduction

In this chapter I will consider the connection between biology and morality at its most fundamental level: the gene. This will serve several purposes. Firstly it will fulfil its ostensible purpose in eliminating the possibility that morality might be genetically determined. While not a surprising conclusion, discussing the possibility will reveal facts central to an exploration of a connection between biology and morality. For example, it will highlight the role that environment plays in determining human characteristics. Since the origin of certain moral rules is also considerably influenced by the environment (as I will argue in Part Two), it is important to understand this interplay. This chapter will also serve as a means of introducing some of the terminology that appears throughout the rest of the thesis.

1:1 Genes and genetic determinism

In his book *The Selfish Gene*, Richard Dawkins gives a fascinating account of an experiment conducted on a hive of bees aimed at pinpointing the biological mechanisms involved in eliminating diseased larvae from the hive (Dawkins, 1976: 60-62). It began with the observation of a caste whose responsibility seems to be the identification of diseased larvae, the unsealing of the wax enclaves in which they lie and the subsequent disposal of them. Cross-breeding revealed that these different steps were under fairly tight genetic control; that is to say, each individual step required the possession of a particular DNA sequence. Consequently, if certain genetic components were bred out of a given bee, the process of removing the diseased larvae was arrested at certain key steps. For example, bees with only the genes for uncapping were able to uncap the wax enclaves but nothing more. Other bees found to be seemingly void of any removal instincts whatsoever were later

found to merely lack the genes required to un-cap the cells: if the cells were uncapped already, the wasp would proceed to remove the diseased larvae.

The results of such experiments provide fairly strong evidence that the genome is largely responsible for at least some of the ways in which organisms develop and consequently behave. In this case, the wasp uncaps the wax enclave because it is genetically programmed to do so; if the genes are "removed" the wasp no longer performs the act. However, while it is certainly true that an organism's development will be importantly influenced by its genes, this does not entail that everything that organisms do is genetically determined.[9] That we might be misled into thinking that they are is partially due to misunderstandings of both the "gene" and the role that it plays. In fact, it should be noted that the concept of the "gene" itself appears to be in a state of flux as new discoveries about the functioning of the human genome surface. For instance, the concept is now wandering further and further away from its former representation as a discrete unit of inheritance responsible for the production of a particular protein, but it has not settled into another neatly confined definition. In fact the extent of current indecision about the exact nature of the gene is epitomized by scientist Karen Eilbeck's account of a meeting of 25 scientists which was initially hampered by the considerable amount of time it took for the participants to come to some consensus about the definition of a gene. In the end they agreed that they would define the gene as "[...] a locatable region of genomic sequence, corresponding to a unit of inheritance, which is associated with regulatory regions, transcribed regions and/or other functional sequence regions" (Pearson, 2006: 401). I will likewise adopt this definition when reference to genes is made in this thesis.

Putting such difficulties aside for the moment, what *is* fairly uncontroversial is that the genome is integral to the biological development and behavioural repertoire of

[9] Genetic determinism is the view that all of what we are and do is determined by our genome. In its most extreme form, genetic determinism is taken to imply that individual genes are responsible for all of our individual characteristics, a misguided view that is aided and abetted by the reasonably frequent references in popular media to the alleged discovery of phenomena such as the "fat gene"; "the homosexual gene", or the "aggressive gene".

organisms. What is interesting about humans, however, is that while we seem so behaviourally complex and flexible in comparison with certain other species, there is not a huge difference in the number of these "regions of genomic sequence" between us and them. This suggests that the genome alone is not solely responsible for the traits that we have.

It is of course true that a certain amount of this complexity can partially be explained by the fact that certain genes may behave differently in different circumstances. For example, one gene sequence in combination with another may produce one trait, but in conjunction with another may produce an entirely different trait. Gene sequences themselves also have different potentials (pleiotropy).[10] Genes may also be selected for one adaptive trait, but then later be instrumental in producing a different trait.[11] These factors might help explain why we exhibit more behavioural complexity than species with which we share a similar genetic count.

The most significant problem with a genome-centric view, however, is the suggestion that the genome works *in isolation* in producing traits. The genome does not operate alone; it requires an environment, and the final expression of a particular genetic sequence is inextricably linked to the way in which it interacts with this environment.[12] Some have referred to this system as a "developmental matrix" which involves much that is environmentally dependent, physiological and non-genetic (Sterelny and Griffiths, 1999:95).[13] Internally, for example, much of gene expression

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[10] Sterelny and Griffiths cite David Hull's example of the allele in the drosophila which has consequences both for the eye colour of the fly and also the shape of the spermatheca (Sterelny and Griffiths, 1999:122).

[11] The feathers of a bird for example are thought to have evolved for their fitness enhancing contribution to thermo-regulation, rather than for flight for which they were later used. (Ostrom, J.H. [1974, 1979]). I will talk about this example again in Chapter Two.

[12] For an interesting discussion of this, Kim Sterelny and Paul Griffiths devote an entire chapter of their informative book *Sex and Death* to the "developmental systems theorists" (1999, 94-110); that is, scientists who challenge the omnipotence of the genome and concentrate rather on other factors which play what they deem an equally important, if not even greater role, in the conception and development of the individual organism (Sterelny and Griffiths, 1999: 94-110).

[13] The study of these developmental processes is referred to as "epigenetics", a term introduced by Waddington (1952) and which has been defined as "...the interactions between genes and their products, and the various other conditions composing the milieu required for developmental processes to take place." (Wolf, [1995: 128], as quoted in J.S.Robert, 2002: 598).

is regulated by the cellular environment in which the gene is to be found. Externally, the environment will determine much about the way in which the organism will develop and behave; a baby may be born healthy, for example, but unless it is born into an environment that can provide for its needs, it will not survive. Indeed, the role of the environment will be a major part of the developmental story of morality provided in thesis.

In sum, one could say that the genome is like a collection of raw materials without which an organism could not be built. The way in which the final product - the phenotype - will appear, however, will depend upon a series of internal and external influences. This is not to say that the final product will be completely random; for while it is true that there is the possibility of variability, gene complexes nonetheless have a limited range of expression, some of which are more tightly restricted than others – recall my example of the behaviour of the bees. In other words, plasticity is not unlimited. Certain environmental changes are completely incompatible with organismic development and may kill the organism in question, something which occurs frequently (Rose, 1999: 876). Recall also that for the majority of species, the viable organism will be born with a certain set of features that it requires to live. Human beings could not survive without the organs necessary to breathing and nourishing themselves, for example. There are certain features about us which are less "plastic" than others.[14]

Human traits, then, cannot be accurately described as solely being determined by the genome. That they might be seen as such is characteristic of the "nature/nurture" divide which depicts behaviour, for example, as either innate, in the sense that one cannot do otherwise, or completely plastic and primarily subject to environmental shaping. Such divisions are highly misleading. Instead of being two sides of the behavioural coin, "nature" and "nurture" are mutually dependent in their effects on behaviour. Genes, for example, are better perceived as propensities, some of which

[14] If I inherit the gene for Huntington's disease, for example, I will suffer the consequences of having the disease, unless of course a cure can be found.

are more likely to be manifested than others given the right circumstances; the bee is genetically predisposed to uncap wax enclaves, but will only do so if there are wax enclaves to uncap.

To conclude, in answer to what would initially seem a reasonable question – that is, is morality or any of its constituents genetically determined – it is with confidence that I can say "no". Human behaviour, for one thing, is far more complex than this and can be more accurately conceived, in the words of Wahlsten and Gottlieb, as a "...multilevel affair involving at least culture, society, immediate social and physical environments, anatomy, physiology, hormones, cytoplasm, and genes"(1997:183). Inasmuch as morality is concerned with human behaviour, then, we cannot look solely towards the genome for an explanation of this aspect of morality. Indeed, the remainder of this thesis will be concerned with exploring the nature of the connection between biology, environment and morality, and will plumb both biological processes and environment features to seek out the contributing factors. In the next section, the search will continue via a process of elimination in which the possibility that moral rules might be the direct issue of biological adaptation will be considered and rejected.

Conclusion

If one seeks to provide a biological explanation of morality, it is important to pinpoint the contributing factors. What has been established here is that morality is not the product of our genome alone. While this may not come as any great surprise, exploring the reasons why this is the case has had a revelatory function. Here, for instance, the importance of the environment to the biological development of organisms has been underlined. As I will argue that both biology and environment working in tandem can explain the origins and various aspects of morality, the first important steps in the exploration of morality have been taken. The next step is to now determine *how* it is that biology and environment - or "nature" and "nurture" - interact to produce morality such as we know it today.

Chapter 2: Moral rules as adaptations

Introduction

In the previous chapter, the possibility of explaining the origin of morality as the product of genes alone was eliminated. This however does not eliminate a possible role for biological traits in the developmental story of morality; it merely highlights the need to explore the interaction of biology with environment in such an account. Human biology is far from being out of the picture.

In this chapter, I will commence the exploration of possible connections between morality and biological adaptations. There are several plausible connections that might be made. For example, in Part Three I will consider (and reject) Richard Joyce's contention that the actual *propensity* to judge things morally right or wrong – the "moral sense" - is an adaptation. Joyce uses this to explain – for instance – the fact that most people, including small children, are able to make the difference between conventional rules and moral rules (Joyce, 2006: 139).

Secondly, it might - and in this thesis *will* - be argued that morality is the *bi-product* of a series of biological adaptations. Arguments to support this conclusion will be developed over the course of this and the following parts.

Thirdly, it might be argued that certain moral rules are the formalisations of biological adaptations (Ruse and Wilson, 1986: 429-430). I will now discuss why this argument might be considered inadequate *on its own* in explaining morality as a whole. Two different (quasi) universal moral principles - that we ought to be kind to our kin, but that we ought not to have sex with them - will be targeted.[15] In the case of incest taboos, I will conclude that (A) a biological basis can be established for

[15] I will use the word "quasi" here to indicate that while there is a degree of universality in these rules cross-culturally, there have been or might be exceptions.

disinclination towards certain incestuous behaviour, and (B) this disinclination might *contribute* to the formation of the moral taboo (C) it is nonetheless *insufficient* by itself to explain the moral taboos against incest that exist in most societies. In Chapter Three the appearance of the moral rule will be given a cultural explanation in terms of its role in securing familial cohesion, with the suggestion that it may have been implemented deliberately by humans to serve this end.

Likewise, different forms of altruistic behaviour could be seen at certain levels to be explicable in terms of biologically selected traits that favour them.[16] The propensity to help one's kin, for example, has been (famously) explained via its role in enhancing one's own biological fitness; the genes that family members share have a greater chance of being passed on should those that share them help each other survive (Haldane, 1932, Hamilton, 1964). There is, moreover, plausible evidence for the presence of biological mechanisms that not only enable the easier identification of kin, but that also engender feelings of attachment or detachment depending on the relationship in question. I will nonetheless argue that kin altruism in this sense, cannot on its own explain *moral* rules which encourage similar behaviour.

Based on these arguments, I will conclude that specific moral rules cannot plausibly be explained uniquely with reference to biological mechanisms that lead us to believe that they are right or wrong: morality is far more complex than this. What I *will* conclude, however, is that a series of different biological traits can *contribute* to the formation of some of the moral rules that we have. This observation will contribute to my more general claim that while biological adaptations are not solely and directly responsible for the fact that we have morality, they are nonetheless centrally implicated in explaining how humans themselves are able to formulate moral rules, be motivated by them and to also believe these moral rules are categorically binding.

[16] I note here that cases of reciprocal altruism are often explained in this way (See, notably, Trivers, [1971]). There is not the space, however, to enter into the vast details of this argument; a brief discussion of kin altruism will be sufficient in establishing the point that some moral rules are boosted by biological adaptations, but cannot be solely accounted for by these mechanisms.

2:1 Adaptations

Before going any further, some terminology requires clarification. Since I will refer often to "biological adaptations" it is important that I clearly define what I mean by this in order to avoid confusions that talk of adaptations often generate.

Central to Darwin's famous *Origin of Species* was the observation of differences between species and the conclusion that they had been wrought through a process of gradual change, or "evolution", over a considerable length of time, all organisms ultimately having descended from a single original species. The process is sometimes likened to a tree, the branches of which are the various species, joined ultimately at the base by a common ancestor. Throughout the history of life on earth, organisms have reproduced and multiplied, certain organisms undergoing changes or mutations during reproduction which have led to the eventual diversification of species or "speciation". The species that survive do so because they have advantageous features which have given them the edge over their rivals in a competition for limited resources; or, using Darwinian terminology, they have survived because they are the fittest, and they are the fittest because of their (relatively) superior features called "adaptations." These adaptations are passed on via reproduction to future generations and will continue to do so as long as they are advantageous (or, if no longer specifically advantageous, not detrimental) in terms of their contribution to the organism's survival.

To say that a trait is a biological adaptation, then, is to say that it has been selected at some point in an organism's past because it has enhanced the organism's ability to survive and reproduce. The fact that I walk upright for most of my life, as opposed to on all fours like some of my ancestors, is due to a series of adaptations which were selected at some point in the evolutionary history of my ancestors and which were most likely retained because of the advantages that they conferred. The exact nature of the advantage walking upright itself conferred in our evolutionary history,

however, is subject to debate.[17] What is fairly clear is that some of these changes contributed - or at least were not detrimental - to our ancestors' fitness such that they survived long enough to pass these changes on to their offspring and so on, culminating in the universal upright walking position of humans today.

Drawing conclusions about the precise adaptive function of some traits is very difficult. More pertinent to this thesis, however, is the difficulty involved in establishing that traits are even biological adaptations to begin with. Since I am arguing that morality is not a naturally selected, biological adaptation, a few words about the difficulties involved in locating adaptations is important here.[18]

As stated, one of the major difficulties involved in discussions about biological adaptations is determining which traits are in fact adaptations to begin with. It is very easy and indeed, it has been very common, to isolate individual traits exhibited by organisms and to blithely hypothesize as to why the particular trait seems advantageous, and is thus a biological adaptation. Biological literature is of course replete with such accounts, some of which are considered more plausible than others; that teeth are adaptations for eating is generally accepted, for example. Other accounts, however, are much more fanciful, and are often reminiscent of "just-so" stories told to us as children to explain how and why some particular animal got a particular feature. [19] Some accounts are especially noteworthy for the ingeniousness of the reasons proposed to explain certain traits. (For example, a particularly alluring explanation of the pink colouring of flamingos is that it is an adaptation designed to

[17] It may, for example, have been the advantage of increased and prolonged mobility that it conferred in a time where the savannah became the predominant hunting ground. It may also have been the advantage that having liberated hands offered in terms of wielding and using various tools. As with many adaptations, exact explanations of their survival advantage – if indeed there still is a survival advantage – are not always easy to discover.

[18] For a further, interesting discussion on adaptations and the some of the misconceptions and abuses of the term, see Gould and Lewontin's famous 1979 paper "The spandrels of San Marco and the Panglossian paradigm: A critique of the adaptationist programme."

[19] The concept of "just-so stories" refers to Rudyard Kipling's famous fables invented to explain how different animals acquired various characteristics (Kipling, (1952, [1912]).

camouflage flamingo flight at sunset [Rose, 1999: 883]).[20] It would perhaps be best, as Bernardo Dubrovsky points out, to keep such "adaptationist" tendencies in mind before embarking on the search for purpose at all costs.

> Adaptationists regard each aspect of the organism's morphology, physiology, and behaviour as a specific adaptation of the entire organism. For them the problem of evolutionary science is finding out what an adaptation is for, when in fact the first question should be whether it exists (Dubrovsky, 2003: 95).[21]

Of course the difficulties involved in seeking adaptive explanations are manifold. Firstly, there is the problem of supporting one's claims with sufficient evidence based on an analysis of both present and past. As Robert Richardson cautions, "...the task of explaining some trait as an adaptation ... depends on understanding the evolutionary history which produced it."(Richardson, 2003: 707) While it might be easy to consider the current function of a trait, and then conclude that this is its adaptive function, such reasoning may be misleading. For example, one might conclude on seeing birds fly that feathers are adaptations that evolved for this purpose. Investigation of their evolution, however, suggests that in fact they evolved as an insulating mechanism (Ostrom, 1979: 45-56). A trait only becomes adaptive when it has been selected for and perpetuated *over time*: time itself, however, may give rise to circumstances which afford new usages for old adaptations, such as feathers used for flying. Stephen Jay Gould and Elizabeth Vrba famously labelled such functions "exaptations" (Gould and Vrba, 1981).

Determining the adaptive function of a trait is made even more difficult by the fact (mentioned earlier) that gene complexes can be responsible for producing different traits depending on the environment in which they are found. To further confound matters, there is also the fact that certain traits simply do not seem to have – or no

[20] This example was given by Steven Rose as an example of some of the more outlandish explanations provided to account for the functions of different traits.
[21] Dubrovski makes note that this point is derived from Fodor (2000) and Mahner and Bunge (1997:423).

longer have - any particular adaptive function at all.[22] For example, some traits are simply circumstantial and totally neutral in terms of fitness enhancement: the red colour of blood, for example, is almost certainly not an adaptation, but is merely the colour of the haemoglobin that is in the blood (Lewontin, Rose & Kamin, 1984: 262).

Finally, the actual biological process of transmitting adaptations is often ignored in bids to locate adaptations. For instance, in order to prove that something is an adaptation one would need to pinpoint the gene complexes that constitute the adaptation in the first place. While this of course is not always possible, doing so needs nonetheless to actually be a possibility. It is not enough to conclude that a trait is an adaptation just because it is advantageous to an organism in some way; it has to also be physically possible.

This latter point is central to this thesis since I am arguing that morality is a *composite* phenomenon that is the product of many adaptations. If my arguments succeed, this would suggest that saying that morality is an adaptation is simply false. Even those who claim to have found the moral trait which could be "the" adaptation (such as Richard Joyce), fail to demonstrate *how* it could plausibly be considered a naturally selected trait and account for all aspects of morality (See Part Three for more detailed discussion).

With these considerations in mind, we may return to a more focused consideration of the nature of a link between morality and biology, aware of some of the pitfalls talk of adaptations may present. On a concluding note, however, it should be pointed out that in this thesis, the term "adaptation" will be taken in the Darwinian sense of the term to refer to a trait that has been naturally selected at some point in an organisms' biological history. To denote a trait or characteristic that *contributes* to the survival and reproductive prospects of an organism but which is not the product of a

[22] The obvious example is the appendix, whose only current function could perhaps be seen as its propensity to sometimes burst, enabling its bearer a short holiday in hospital. Of course it is believed that the appendix did perhaps once serve a purpose, but it is now what is referred to as a "vestigial trait" – that is, a trait that once did confer some kind of evolutionary advantage, but which is now redundant.

biologically heritable adaptation, the term "fitness enhancing" rather than "adaptive" will be used; "adaptive" will be reserved for talk of biological adaptation to avoid confusions.

2:2 Universals

As stated in the introduction to this chapter, there are different ways in which morality might be linked to biological adaptation. This section will explore the possibility that there are biological adaptations which predispose humans to behave in certain ways that are then formalised as moral rules. One angle from which to commence the investigation is to find examples of morally regulated behaviour which appears to exist universally. This approach is based on the argument that certain types of behaviour found commonly throughout the human population are the product of adaptations evolved in early *Homo sapiens* history. This is one of the core arguments of evolutionary psychology, for example (Levy, 2004: 460).[23] Adaptations, recall, are traits that have contributed somehow to survival and have been passed on to future generations as a result. If they were selected early in our evolutionary history (when presumably there was not considerable population spread) one might expect to find certain of these adaptations throughout the entire species. As Levy puts it,

> How else to explain the fact that human sexual behaviour follows the same generated patterns across all, or almost all, known human cultures; that everywhere people prefer their kin to non kin, and so on, for all the human universals identified by anthropologists? (Levy, 2004: 460)

One reasonable approach to the question of a link between morality and adaptation, then, would be to seek out common features in cross cultural moral codes as a point of departure.

[23] Evolutionary Psychology will be discussed more fully in Chapter Eight.

The first thing to establish is what, on a general level, might constitute "universal human behaviour". It does not take long to find examples. Cross-culturally, all humans eat, drink, and reproduce, for instance. These requirements, in turn, are regulated by an array of (quasi) universally present biological mechanisms, both for the processes themselves, and also for the generation of the urge to perform the processes. (Hunger, for example, will lead us to eat). Moreover, while these processes may initially seem irrelevant to moral behaviour, they may nonetheless be implicated in the formation of moral rules as R.G. Collingwood points out,

> ...the historian is not interested in the fact that men eat and sleep and make love and thus satisfy their natural appetites; but he is interested in the social customs which they create by their thought as a framework within which these appetites find satisfaction in ways sanctioned by convention and morality (Collingwood, 1926: 216).[24]

Collingwood has a good point; having "natural appetites" does impact on a lot of what we do since we will always be seeking ways of satisfying these "natural appetites". For example, Jared Diamond in his epic *Guns Germs and Steel* persuasively argues for the key role food procuration has had in the development of both culture and country (Diamond, 1997). The need to search for seasonal food due to the infertility of much of the land inhabited by Australia's Aboriginal population, for example, is a contributing factor to their formation of small nomadic tribes. As will be argued in Chapter 5, such a lifestyle impacts significantly on social organisation, composition and structure and, in turn, the moral rules that regulate them.

At least part of our behavioural repertoire, then, appears to be quasi-universal, biologically generated, and also involved in shaping other aspects of human behaviour. At first consideration, then, it does not seem impossible that we might find moral *behaviour* that is cross-culturally common and perhaps the product of adaptations, or at least, moral rules which are shaped by biological adaptations that

[24] As quoted in Salmon, M. H. (2003: 723)

humans have in common. It would be useful, then, to commence a search for a tenable connection between biology and morality with a search for universal moral rules.

2:3 The incest taboo as a moral adaptation

The search for universal moral rules which appear to be the direct product of biological adaptation has yielded a number of candidates which have been highly debated. There has, however, been a degree of consensus with regards to one or two: the incest taboo and kin altruism. Indeed there are few discussions of morality in sociobiological literature which do not mention either of these at some point. In this section the incest taboo will be discussed. I will conclude that while an adaptive aversion to incest may contribute to its moral condemnation by *bolstering* our conviction that it is wrong, the aversion itself is insufficient to explain either the condemnation that it receives, nor the fact that sanctioned by a moral rule.

In most cultures, incest in one form or another is generally considered to be morally wrong.[25] Michael Ruse and E.O.Wilson are amongst those who claim that these moral taboos are formalisations of adaptations which disincline us to enter into certain incestuous relationships (Ruse & Wilson, 1986: 183-185). They claim that inhibition towards incest evolved as an adaptation, the function of which is to decrease the incidence of mental or physical deficiencies (or even fatalities) likely to result from inbreeding.[26] They also argue that incest avoidance mechanisms form

[25] Incestuous practices have at times been actively encouraged in certain cultures, however. Sibling marriages were a common occurrence in Ancient Egypt, for example. In a study undertaken by Scheidel (1997) of the city of Arsenoe, it was revealed that 30% of marriages that took place between 90 CE and 200 CE were between siblings. According to the fragmentary evidence available, these marriages were highly celebrated occasions which later went on to produce children.

[26] Incestuous relationships increase the instances of homozygosis in offspring, which in turn increases chances of pairing of deleterious recessive genes that would otherwise be disabled on their own. (Eva Seemanova, 1971, as cited in Wilson, 1978: 37) For example, in one study cited by Wilson, it was found that of 161 children born to women from incestuous relationships, 15 of them were either still born or died within their first year, and that a staggering 40% of them had either physical or mental defects. When 95 children born to the same women from non-incestuous relationships were studied, it was found that only five of the children died in their first year, none had serious mental deficiencies and only 5% had physical defects.

part of the category they refer to as "deep biases" or "epigenetic rules" which shape aspects of our neural functioning, including the ways in which we reason morally (Ruse & Wilson, 1986). It thus joins a repertoire of protective behaviours left over from our hominid beginnings, a repertoire which includes such things as phobias of snakes and high places which plague us still in spite of the presence of even more dangerous, common threats in our own societies.[27]

Claims of a biological inclination towards incest avoidance, however, do not exist in a theoretical vacuum. Research suggests the existence of biological mechanisms that when activated or invoked manifest themselves in a lack of interest or even aversion to incest. Principal amongst the mechanisms implicated are those responsible for generating a "sensitive period" that young children (allegedly) experience between birth and 6 years of age (although this varies), during which close proximity with certain people will later preclude ability to form strong sexual bonds with these same people. Such was the theory advanced by Edward Westermarck in 1921, and which subsequently became known as the "Westermarck hypothesis" (Westermarck, 1921). Studies have supported this hypothesis, including Arthur Wolf's oft-cited research into the Chinese and Taiwanese practice of adopting a future spouse -a "Sim-pua"- into the family as an infant, a practice which is believed to strengthen the future familial ties of the future spouse and her in-laws (Wolf, 1966, 1968, 1995). Data suggests that this close contact between the prospective partners in infancy has led to a higher incidence of divorce, infidelity and lower fertility amongst these couples later in life. This study has been often cited as major evidence supporting the Westermarck hypothesis.[28]

More recent research conducted by Debra Lieberman, Leda Cosmides and John Tooby likewise supports this hypothesis (Lieberman, Tooby & Cosmides, 2003). Their conclusions were based on a survey conducted amongst 186 subjects who were

[27] This view belongs particularly to the field of Evolutionary Psychology, and, as mentioned before, will be discussed more fully in Chapter 8.

[28] These results are also supported by a reported lack of inclination of Kivutza of the Israeli Kibbutz to marry those with whom they grew up, in spite of lack of prohibition to do so and regardless of the lack of blood tie (Shepher, 1971).

asked to rank the moral severity of a variety of incestuous relationships. The results showed that the length of co-residence, and not genetic relatedness itself, was the main variable that affected subjects' judgements about the moral wrongness of sibling incest. That is to say that the longer the co-residency endured, the more severe the moral condemnation of incestuous behaviour was considered. Lieberman, Cosmides and Tooby also postulate the existence of biological cues for recognizing kin, which they refer to as an "evolved kin-recognition system". The system includes a range of biological mechanisms, amongst which are olfactory cues. For example, in studies conducted it was found that people were often able to identify kin via their smell: children, for example, were often repulsed by the odour of opposite sex siblings. It has also been shown that people seem attracted to others who have a different MHC (Major histocompatibility complex) to their own (Weisfeld et al., 2003, Wedekind et al., 1995).

The strong evidence for such biologically-generated inhibitions suggests that it is reasonable to conclude that they are adaptations which serve (amongst other things) to prevent the possibilities of deformity and disease associated with inbreeding. Ruse and Wilson suggest (as mentioned above) that this inhibition has, in turn, been formalised by moral sanctioning on the part of cultures (Ruse and Wilson, 1986). This, then, might lead one to conclude that moral injunctions against incest are derived directly from biological adaptations which inhibit such behaviour.

In response, I argue that the aversions produced by the proposed adaptations mentioned here are not strong enough, or even sufficient, to directly account for either the moral condemnation incest often elicits or the variations of the taboo that exist cross-culturally. This suggests, in turn, that the connection between the biological mechanisms and the moral taboos is more distant than might otherwise be implied.

Firstly, studies have shown that the Westermarck effect does not lead to very strong aversions to incest which *preclude* sexual activity taking place, but rather to simple

lack of interest in - or at the most, a mild repulsion at the idea of - any sexual activity with one's co-residents (Van Den Berghe, 1983). While the divorce rates amongst sim-pua arranged marriages are considered relatively high in Taiwan, they are much lower than those amongst the general population in the US, for example, and the fertility rates are actually higher than those of North Americans (but still comparatively low for Taiwan). This suggests that co-residency merely makes the thought of sexual relations seem relatively unappealing, but no insurmountable impediment to them actually taking place (Hendrix & Schneider, 1999: 202).

Secondly, moral taboos against incest, particularly incest between children and their parents, usually express the belief that incest is fundamentally *condemnable*, not just something that is "unappealing". Furthermore, the moral taboo itself usually expresses condemnation of the act for reasons other than the possible risk to unborn children (I will outline some of these reasons in Chapter 3). This fact implies that the taboo is the product of human decision to *impose* the rule, rather than the rule being the mere formalisation of a biological predisposition.

Thirdly, it is plausible that moral taboos may have even been *introduced* to ensure that incest is avoided because the biological disinclinations are neither strong enough nor specific enough (i.e. reserved for kin only) to be effective in preventing this kind of relationship. This is a point supported famously by Freud (1952) who claimed that we would not need a moral taboo if there was already a biological inclination against incest. [29] Many risky or dangerous practices which are partially regulated by biological mechanisms that make them seem unappealing do not also require moral taboos to ensure their exclusion from the behavioural repertoire. People, for example, do not require a moral taboo to ensure that they do not eat obviously rotting food; our (biologically generated) sensitivity to the smell or sight will usually ensure that we do not do it.[30] Moreover, having an aversion to or disinterest in something

[29] Freud's own theory was that humans have an innate desire *to* behave incestuously. It is, in turn, because of this propensity that the cultural taboo is required, for the sake of the existence of the family and in the face of potentially explosive repressed incestuous urges (Freud, 1913/1952).
[30] I will suggest in Part Three, for example, that disgust is a biologically generated emotional reaction.

does not make it automatically a moral issue. I may have an aversion to the taste of raw oysters, but eating them does not *thereby* become a moral issue for me. There is more to morality than this.

What I will argue, however, is that these mechanisms may contribute to the formation of moral rules by *bolstering* the belief that certain actions (including, even, the eating of oysters!), for example, are morally wrong.[31] A rule (for example, one which states that incest is morally wrong) that is accompanied by a feeling of displeasure and disgust when contemplating the act itself, may possibly serve to *reinforce* the belief that it is wrong. This would require that either there be the moral taboo first, however, in order for the condemnation to be of a moral nature rather than the simple expression of distaste or disgust. Or, as will be argued in Part Three, the reaction would have to be stronger than mere aversion to give rise to the moral rule. A weak disinclination (or even an aversion) on its own is not enough on its own to account for the existence of the incest taboo in many moral codes. At best it *contributes* to the explanation. In the absence of a direct biological explanation of moral incest taboos, are we therefore entitled to conclude that cultural considerations explain the existence of the taboo better? This possibility will be explored and supported in Chapters Three, and again in Part Two.

2:4 Kin altruism as a moral adaptation

> ***... much as we might wish to believe otherwise, universal love and the welfare of the species as a whole are concepts that simply do not make evolutionary sense (Dawkins, 1976: 2).***

In the previous section, I argued that moral incest taboos are not adequately explained as the formalisation of adaptive mechanisms. These mechanisms may *contribute* to a sense that there is something somehow "wrong" about incest but they are insufficient to either explain the universality of the taboo or the seriousness with which it is imbued. Another common component of cross-cultural moral codes is rules

[31] This argument will be taken up in Part Three.

prescribing altruistic behaviour. I will now turn to altruism to see if it can be explained in any sense as the direct product of biological adaptation.

The first thing to note is that "altruism" is a somewhat vague term which, as Richard Joyce correctly points out, generates a lot of confusion (Joyce,2006: 13). What is, however, fairly uncontroversial is that key elements of an altruistic act include (A) that it bear positive consequences for somebody else and (B) its performance incurs some cost to the performer. Giving up time to help a colleague with their work; regularly giving blood donations; offering a proportion of one's salary to a given charity each week - these are fairly classic examples of altruistic acts that are reasonably familiar.

What is particularly interesting about altruism (with regards to this thesis) is that it is not uniquely a human phenomenon. This suggests that altruism also warrants consideration as a possible biological adaptation since its cross-special incidence suggests that it is less cultural construct and more shared biological feature. For other animals – as I will argue in Part 2 – do not appear to either have cultures comparable to human cultures, nor do they appear able to shape or prescribe behaviour in a way comparable to that of humans.

It seems likely then that altruism might in some way be the product of a specific biological adaptation. The problem, however, is that altruistic behaviour seems completely anomalous within a Darwinistic evolutionary framework since it is difficult to see how a trait that favours self sacrifice could actually evolve since self sacrifice is distinctly *disadvantageous* to the individual. Darwin himself was particularly puzzled by the incredible feats of both reproductive and individual sacrifice found amongst the eusocial insects, claiming, somewhat dramatically that it was "...one special difficulty which at first appeared ... insuperable, and actually fatal to ... [his]... whole theory" (1859, Ch.8).

Superficially, then, it seems unlikely that altruistic behaviour of any type could issue from a biological adaptation. Darwin's theory of natural selection, however, was based principally on the consideration of the individual (and at times even the group[32]), as the unit of selection. Mendelian genetics filled in at least some of the gaps in Darwin's theory, however, and while it is still not unreasonable to posit the individual or perhaps even the group as a possible unit of selection, it is now clear that the gene itself is one of the key players in natural selection.

The discovery of the gene as a unit of selection paved the way for a highly plausible explanation for a form of altruism that can be found not only cross-culturally, but also cross-specially: kin altruism. The explanation (called "kin selection" or "inclusive fitness theory") departs from the observation that parents and offspring share the same genes.[33] In promoting the survival chances of offspring, then, parents are also promoting the survival probabilities of their own genes. The probabilities increase, moreover, as the number of offspring increase, as each one brought to sexual maturation represents yet more of the parents' genes in the population. Both Jack Haldane and William Hamilton famously demonstrated that it was consequently highly likely that adaptations enabling self-sacrificial behaviour which benefits kin evolved via natural selection (Haldane, 1932, Hamilton, 1964).

Evidence for adaptations favouring kin selection is abundant in the colonies of the eusocial insects. This is explained by the fact that the worker caste are clones, which means that siblings share more genes with each other than they do with their own offspring and therefore have a greater evolutionary interest in promoting each other's welfare and forgoing their own reproduction. Lee Dugatkin (2004: 464) cites Ratnieks

[32] Darwin seemed unsure as to how this could possibly occur, however. This claim has since been taken up by others, though most famously by V.C. Wynne-Edwards (1962), Eliot Sober (1998), & D.S. Wilson (1975, 1998). Darwin also specifically mentioned the idea in his 1871 *The Descent of Man* (166). While not discounting the group or individual as a possible unit of selection (and I do favour a pluralist approach), much of what is discussed in this thesis will focus more on the gene as the unit of selection, and the individual as the "vehicle" (Dawkins, 1976, 1982) or "interactor" (Hull, 1981). This is principally because any direct connection that morality is argued to have with specific adaptation (kin selection, for example) can be explained in terms of the gene as the unit of selection.

[33] What we inherit, of course, will not be exactly 50% from one parent and 50% from the other: the proportions may vary considerably case by case.

and Visscher's 1988 paper about honey bees as evidence that this phenomenon occurs. They found, for example, that workers in the hive take more active care of the queen's eggs than other workers' eggs, evidenced by the fact that at the end of a 24 hour period only 2% of the workers' eggs were still living as compared to 61% of the queen's eggs. This is explained by the fact that the queen's offspring are the workers' siblings, whereas the workers' offspring are merely nephews, and thus they share more genes with the former than the latter. Protecting the former, then, is in their genetic interests. Such behaviour is explained as being the product of adaptations selected to promote such behaviour (Ratnieks &Visscher,1988: 796-797).

It is thus that Darwin's "insuperable difficulty" is *partially* solved in terms of a biologically based explanation for the existence of certain forms of kin altruism. Extending this to humans, in aiding my kin, I increase the survival prospects of my own genes since my kin share some of these same genes. As such, it seems likewise to make evolutionary sense that adaptations that encourage this type of relationship have evolved, and this is indeed what we find. Some of these adaptations, such as those that enable the identification of close kin, were discussed in the previous section as incest avoidance mechanisms. Others include bonding mechanisms that have their basis in the human affective system, which will be discussed more fully in Part Three.

Such explanations make it tempting to conclude that a direct connection between biology and morality can be made with regards to kin altruism. This is not to be the case however, as I will now argue that adaptations promoting kin altruism do not contribute substantially to an account of *moral* altruism.

To begin with, while biological adaptations appear to explain certain examples of puzzling self-sacrifice that are often witnessed in the animal kingdom, they do not seem to be able to explain other significant forms of altruism such as altruism extended towards non-kin. Rules encouraging a more generalized form of altruism (such as the giving of charity to the less fortunate) are ubiquitous cross-culturally. Michael Ruse suggests that the biological mechanisms involved in kin altruism are

general mechanisms whose application has been extended or "universalised" to include non-kin as non-kin increasingly came to be a part of our social groupings during our evolutionary history (Ruse, 1986). Mark Ridley however argues that this is unlikely since such a mechanism would almost certainly lead to completely maladaptive consequences (Ridley,1989: 364).[34] The function of kin selective adaptations is to be able to identify kin from non-kin in the first place, so as to be able to favour them, thereby enhancing the survival prospects of your own genes. Consequently, he argues, "[t]here cannot be a simple rule to co-operate with all individuals you meet. The discrimination against some individuals is as fundamental to the selection of altruism as is the discrimination in favour of others" (Ridley, 1989: 362). A biological mechanism which entails that we might be predisposed favourably towards complete strangers would make us extremely vulnerable to a whole range of people who, for the most part, probably do not have our best interests at heart.

This, however, is perhaps not an entirely fair reply to Ruse. For while it seems clear that certain mechanisms (such as Ridley's hypothetical mechanism) would, if permitted too broad an application, be maladaptive, others that do exist appear to allow such generalisation without necessarily maladaptive consequences. In Part Three, for example, I will argue that emotions such as empathy and sympathy, which most certainly were selected for their role in promoting kin altruism, have now become centrally implicated in moral behaviour that extends far more generally: in Gouldian, terminology, they have been *exapted* to other purposes. I will argue, however, that we are able to discriminate between potentially risky recipients of our altruism, and "worthy" recipients using our ability to reason and reflect. In any case, these mechanisms alone are far from being sufficient to establish a direct connection between biological mechanism and moral altruism which is what is specifically being investigated here. They might, however, contribute to an indirect connection.

[34] Indeed Jesse Prinz suggests that in small groups (such as the earliest groups of humans) people probably do not need rules to ensure that they protect those to whom they are "near and dear" at all since "...it is enough that we like them and that we have an obvious interest in treating the well." He suggests that imposed moral rules encouraging altruism most probably arose when human groups became very large (Prinz, 2008:221).

Secondly, as concluded earlier with incest taboos, it seems unnecessary to prescribe something (via moral rules) that is already done "instinctively". We only tell somebody that they "ought" to do something if there appears to be a choice to make and hence the possibility that the *"wrong"* choice be made. Roger Trigg supports this view.

> ...if human nature has evolved in such a way that we all naturally want to help whoever needs help, the function of morality as an institution seems somewhat obscure. The need for the urgings of morality seems marginal if we are all going to do right anyway because we want to. Even reasoning that we ought to act for the good of the community seems unnecessary if we are predisposed to do so anyway (Trigg, 1986: 332).

If there are moral prescriptions about parental care - or altruism more generally - in cross-cultural moral codes this suggests that either the biological adaptations are not strong enough to assure it always occurs and that even if they are, humans have the ability to occasionally override their influence. This in turn suggests that we might actually *create* moral rules to encourage the behaviour because we recognise the value of the behaviour ourselves. This idea does not totally eliminate a role for pre-existing mechanisms: that we value kin altruism will almost certainly be influenced by pre-existing mechanisms that dispose us favourably towards them. Its inclusion in moral codes, however, rather suggests that humans have *chosen* it as such. In this sense then the moral prescription also serves to fill the gaps where biological pre-disposition may not function efficiently to eradicate or encourage certain behaviour.[35]

An analogous example supports this hypothesis. It is widely accepted that there are biological mechanisms in place that make women with characteristics indicating both youth and fertility seem attractive to men. This makes evolutionary sense since it is

[35] It is interesting to note also that promotion of the welfare of kin is not always considered to be the morally correct path to take. Indeed moral injunctions against nepotism are a regular feature of moral systems.

in a man's interest to reproduce and reproducing with younger woman increases the chances of successful reproduction.[36] Biologically, a woman around the age of 18 is young and (generally) fertile, and yet in the Western world, sexual relations between young women of this age and much older men often elicit moral condemnation. This suggests that there is much more going on in moral decision making than response to biological predisposition.

In sum, then, a plausible connection between biology and morality cannot be found in terms of a set of adaptations which on their own account for certain moral rules. This does not mean, however, that the mechanisms discussed so far are not at all implicated in the origins of certain moral rules; they are, however, only indirectly implicated. These connections will be elaborated in Parts Two and Three of this thesis.

2:5 The question of intention

> ***Humans...are moral agents in the sense that they have free will and so are able to resist the pressures placed on them by their genetic tendencies. Their evolved motives influence their behaviour but do not determine it... (Woolcock, 2000: 52)***

In the last sections I suggested that while there are biological predispositions that may explain some examples of kin altruism, a moral rule which prescribes that we behave altruistically towards our kin seems to derive rather from human decision that it be a moral rule. This raises an important issue with regards to the way we perceive moral agency. In the previous section I made the point that the act of prescribing moral rules - which is what we do when we tell someone that they morally ought to do something - implies that the "someone" has some kind of choice as to how they are going to behave. There would be little point prescribing behaviour to an organism which did not have this behavioural flexibility. It is for this reason that we could not call the kin altruism of the eusocial insects "moral" altruism. In order for an action to

[36] According to Singh, for example, men almost universally find women with a specific waist/hip ratio attractive (Singh, 1993, Singh and Luis, 1995).

be labelled *morally* altruistic it needs to have been motivated, for example, by moral *intentions* - which in this case of altruism are benevolent, other-regarding intentions. This immediately differentiates it from the mechanical-like responses to given cues that characterise the altruism of the eusocial insects since (firstly) the insects do not appear to be able to behave otherwise and (secondly) they do not seem capable of *having* intentions in the first place; to do so requires, amongst other things, self awareness and from evidence garnered to date, insects do not have the neurological capacity to have such self-awareness (in spite of what Disney might have us believe). So even if the function of the eusocial insects' altruistic behaviour *is* (A) to protect members of the group and (B) it is performed sometimes at the expense of the organism (thereby satisfying the two criteria I gave in the previous section to define altruism), it is far from clear that we can call it morally motivated since it does not appear to have been *intended* as such.

Motivation, intention and - by implication - the ability to form intentions and be motivated, are thus central in deciding whether or not an act is *morally* altruistic. Because of this, some have suggested that a useful distinction to make is between "evolutionary altruism" (the product of altruism-producing mechanisms that have evolved to enhance survival prospects) and "psychological altruism" (altruism which is motivated by what is believed to be a genuine concern for the good of others) (Sober, 1993: 206). In the case of psychological altruism, even if an act *appears* to have been performed with altruistic intent, if the act is driven by consciously selfish motives, then it is not usually classified as an act of altruism. Nor could the act be considered psychologically altruistic if it is not motivated at all, but is rather the direct product of a biologically "programmed" response. Psychological altruism accords, then, with what we would call "moral" altruism and evolutionary altruism does not.

Moral altruism, then, requires that there be motivation to behave altruistically without conscious selfish intentions. This, in itself, presents new matters to consider, however. Firstly, there is the practical problem of discovering the nature of someone's intentions.

While in some cases it is fairly clear when behaviour is intended to serve a particular end, in others it is very difficult. When people choose to adopt children from poverty stricken countries it is sometimes for apparently altruistic reasons, particularly when a couple is able (and want) to have children themselves and forgo this possibility to save a child at risk in another country. Discovering this intention is often simply a matter of asking the people involved. This is not as straight forward as it might seem, however. The extent to which the "choice" itself is truly "free" needs to be considered. It may be (and indeed I will support this contention) that many human "intentions" are in fact shaped by fitness enhancing mechanisms (though in a circuitous manner) which renders them less "free" than we might think. For example, there is a lot of evidence to suggest the empathetic reaction that a poverty stricken child might trigger is itself the product of neurological mechanisms, a hypothesis that I will discuss in more detail in Part Three. This suggests that while we think we are choosing freely, our choices are in fact being influenced by the operation of innate mechanisms (of which we are unconscious).

In spite of this, however, we can still maintain that we nonetheless have a degree of choice in the sense that we are *conscious* of having this choice (whether or not we are correct or not). This, in turn, allows us to still believe and claim that our actions have been morally motivated without being accused of deception. In the example provided above, my couple appears to actually *have* a choice in the matter of whether or not they adopt the child, and they also appear consciously motivated to perform the action for moral reasons. That there are underlying mechanisms which influence these choices - while relevant to the ultimate decision about the truth value of moral rules - does not detract from the fact that we believe that we have the choice: morality is partially the product of this belief.

Secondly, there is the matter of explaining *how* it that we come to be motivated to behave morally or have, what I have called here "moral reasons" or "intentions". For example, the behaviour we call morally altruistic is generally labelled as such because we have consciously chosen it with intention to be benevolent and other regarding. More specifically, however, we are motivated to choose it because we believe that behaving

thus is the morally right thing to do (our "moral reason"). This, however, leads one to wonder how it is that we come to be motivated by these beliefs in the first place. One plausible response is that many of us are motivated because we think that our beliefs correspond to some kind of objective fact about which we can be right or wrong and, consequently, *morally* right or *morally* wrong. In this sense, then, we might be motivated to perform a particular act because we think it is the objectively right thing to do. This would suffice as an answer *unless* one was to argue that there are no moral facts of this type as I am attempting to do. As a result one is (or, rather, I am) left with the problem of explaining how it is that we come to believe that there are truths of this type: a third question, then. I will, however, reserve my answer for Part Three where it will be specifically addressed. For now I need to begin my consideration of the prosocial role of moral rules.

Summary

In concluding this chapter I propose that in explaining moral rules prescribing kin altruism as a direct product of biological adaptations we arrive at a place similar to where we arrived in the discussion of incest: that is, at the conclusion that while biological adaptations are implicated in the explanation, they cannot by themselves explain the existence of the moral rules. Even if we were to claim that the adaptations promoting kin altruism (or inhibiting incest) are more heavily involved in explaining the moral rules than they are in the hypothesis I have presented here, all we would still have, at best, is an explanation for what Philip Kitcher referred to as "minor maxims" (Kitcher, 1994: 447) which on their own do not tell us much about morality as a whole: kin altruism, for example, is a small subset of the variety of moral rules that target altruistic behaviour and moral altruism is itself just one of many different constituents of the variety of moral codes which exist cross-culturally. We are, as Richard Joyce concurs, very far from "explaining morality". In his own words,

> In kin selection we have a quick and easy, empirically supported, evolutionary explanation for why humans might have "prosocial emotions" (eg. love) toward certain others:

> emotions that provide the motivation for helping behaviours. But what I really want to emphasize here is how far this answer falls short of explaining morality (2006: 49).

Two important points have been made, however. Firstly, I have provided an account not of the direct source of certain moral rules, but rather of some of the capacities that are most likely implicated in their formation. For example, I have suggested that there are biological capacities in place that are implicated in the regulation of our relationships with others. In the next chapter, and again in Part Two, I will suggest that many of our moral rules are partially the product of the need to regulate relationships, and so these capacities will become even more significant. This will also contribute to my argument that morality is a product of a number of different adaptations, rather than one single adaptation, an argument that will resurface in Part Three where moral motivation is specifically addressed.

Secondly, the importance of motivation and intention in moral matters has been emphasised. I argued, in turn, that these require that we have – or at least believe we have - some kind of a choice as to how to act. Motivation, for instance, implies that one has options from which to choose, options, moreover, which can be put into some kind of hierarchy of importance. That we have choices (or at least believe that we have choices) again suggests that there are many more capacities involved in moral decision making than reductive arguments such as Joyce's suggest. Choices require, for example, the ability to perceive oneself in a future context, to reflect, to communicate and to recall. Some of these capacities will be discussed more fully in Part Two.

Chapter 3: Morality as a social facilitator

> ***To this war of every man, against every man, this also is consequent; that nothing can be unjust. The notions of right and wrong, justice and injustice, have no place. Where there is no common power, there is no law, where no law, no injustice...Justice and injustice are none of the faculties neither of the body nor mind. If they were, they might be in a man that were alone in the world, as well as his senses, and passions. They are qualities that relate to men in society, not in solitude. (Hobbes, 1651: 32)***
>
> ***It is not difficult to imagine the emergence of justice and honor out of the practices of cooperation. (Damasio 2003: 162)***

Introduction

One of the conclusions that I arrived at in the previous chapter was that while there are adaptations which predispose humans to behave in certain ways that coincide with behaviour prescribed by morality, it is not the adaptation which directly explains the moral rule itself. The existence of these adaptations, however, does underline the evolutionary importance of kin relationships. In this chapter I will explore the role that morality plays in managing non-kin relationships in the larger groups which typify human sociality today. Indeed this has been one of the predominant roles ascribed to it by famous philosophers in the past (Hobbes, 1651; Rawls, 1971). In doing so, however, I will not be putting biological considerations aside; I will argue here that moral rules serve an *adaptive-like* (that is, they are fitness enhancing without being adaptations) role in both promoting and facilitating cooperation and harmony in groups. Before discussing how moral rules do this, however, it might well be asked both why larger groups formed in the first place and in which ways they might provide an advantageous way of life.

3:1 The advantages of group living

That our species lives and apparently thrives in social groups implies that it is ultimately an advantageous way of life for us; that this is the case is corroborated

both by the fact of the human population explosion and also the formation of very large, highly structured societies that now exist. Indeed, the advantages of group life must be important to outweigh disadvantages such as the need to share limited resources and the increase in the risk of disease and parasite transmission that group living entails (Alexander, 1974: 328).

Firstly, an initial explanation for the persistence of group living can be found in the fact that for an extended period of time after the birth of children a small kin-based group around the parent is advantageous (Kaplan et al., 2000). Human babies remain dependent on their parents for long periods of time, and are totally incapable of surviving by themselves for at least several years. This has the effect of drastically inhibiting the parent's ability to acquire food sufficient for themselves, their baby and for any number of other offspring they might have. Pooling of resources would help to overcome such obstacles, ensuring a greater survival rate of one's self and one's kin. Having at least a small group of perhaps close kin around would thus be biologically advantageous. In fact if we return to the history of *Homo sapiens*, it does indeed seem highly likely that the earliest groups were partially, if not predominantly, kin-based (Paddock, 1978: 111).

Richard Alexander builds upon this argument and offers suggestions as to why even larger groups may have developed. For example, he suggests that larger groups offer better protection against various predators (including, importantly, the other groups of people competing for limited resources). Also, in larger groups food is more readily accessed by both the pooling and division of labour, particularly in zones in which food is not abundant. Hunting in groups, for example would have allowed the procuration of larger game. In addition, food found by different subgroups at different times could be shared with those that were not so successful, or who were unable to hunt themselves. So instead of being disadvantageous in terms of necessitating the sharing of limited resources, group living in fact becomes advantageous in terms of acquiring those limited resources.

Group living, then, affords several important advantages to humans. But what does this entail? Does it mean for example, that we are biologically adapted to live with other people, and if so, how can this be explained? Firstly, it should be noted that human "sociality" cannot realistically be conceived of as a singular adaptive trait since to be social in the first place implicates such a broad range of different abilities, and characteristics. In Part Two and Three I will discuss some of these capacities. I will argue that (A) both morality and human social behaviour in general are the product of these capacities and that (B) some of these capacities are themselves biological adaptations or the product of biological adaptations that were almost certainly selected for their contribution to aspects of human social behaviour - notably, to what will be referred to as "social learning" - but not for their contribution to moral behaviour specifically.

However, even if human sociality is the product of a series of biological adaptations this does not preclude us from describing it as *fitness enhancing*. This point will be argued for more thoroughly in Part Two. In the next section, however, I will develop an argument to show that morality could likewise be perceived as being fitness enhancing, and, importantly, how this is sometimes achieved. This is with the aim of explaining why morality may have developed in the first place, as well as how morality is related to human biology in its role as an indirect fitness enhancer.

3:2 Morality as a social facilitator

> ***...although a society is a co-operative venture for mutual advantage, it is typically marked by a conflict as well as by an identity of interests. There is an identity of interests since social cooperation makes possible a better life for all than any would have if each were to live solely by his own efforts. There is a conflict of interests since persons are not indifferent as to how the greater benefits of their collaboration are distributed, for in order to pursue their ends they each prefer a larger to a lesser share (Rawls, 1971:4).***

Up to this point, I have made the following claims:

- Moral rules are not uniquely the product of discreet biological adaptations.

- ❖ Moral rules are also the product of humans deciding that they are important.
- ❖ Group living is an evolutionary advantageous way of life for humans.

In this section the following claims will be proposed:

- ❖ In order to live in groups, selfish tendencies need to be managed to avoid constant dispute.
- ❖ Morality promotes social cohesion in the absence of biological adaptations which secure this end. This is achieved by humans formulating and enforcing moral rules which manage human relationships.
- ❖ Moral rules sometimes serve to increase our survival prospects.

In the previous section I argued that humans thrive in groups. Our so called "sociality", however, does not entail that we are inclined to want to live with just anyone. In fact, humans manifest many "anti-social" traits (such as aggression) and living in groups provides ample opportunity for the provocation of such aggression (Flack & De Waal, 2005: 9-10; Wilson, 1978: 99). Living in groups, for example, presents disadvantages such as the need to share limited resources. The difficulty of doing this to the satisfaction of a group of largely self-orientated individuals is - and always has been - the source of much inter and intra group dispute; strife over limited resources has been and continues to be at the heart of many wars, for instance.

Cooperation, and means of ensuring cooperation, is thus central to the success of human cohabitation. In the last section I suggested that human relationships are not regulated by the same level of genetic hardwiring as those of the eusocial insects. Consequently there needs to be another system in place to ensure that defection from cooperative ventures is not rife. In this section I will argue that part of morality's "story" can be told in terms of its role as a set of rules devised by humans and aimed at facilitating cooperative ventures. In particular, I will focus on the way that morality helps reduce the incidences of unnecessary physical and psychological harm and the threats to individual survival that such harm might occasion. It achieves this

by sanctioning behaviour which is perceived as threatening to groups and individuals, a sanctioning which for many people has more power than a simple social rule.

Before commencing my argument, I must emphasise that the fact that I focus uniquely on a prosocial account of moral rules here is only because I wish to illustrate the point that morality can partially be accounted for in terms of its contribution to social harmony: it is not an acknowledgement that this is the only role morality has to play nor that the hypotheses explored here constitute complete explanations of the appearance of the rules in question. Nor am I providing this account as the unique explanation of how morality has developed. For while morality most probably emerged from prosocial rules – and indeed still maintains this role to a certain degree – it has become much more than this. (Indeed, I devote the remainder of this thesis to explaining how and why it is that morality actually differs to other social rules.)

Relationships

Morality is intimately concerned with facilitating human relationships. That they serve this role is borne out by observation of certain quasi-universals that can be found in moral systems across the world.[37] Amongst these are the incest taboo and altruism, a biological basis for which was considered in Chapter Two. Relationships, however, go beyond the familial in human social groups; there are work relationships, political relationships, friendships and specific interest based relationships. Here we are not talking about mere encounters, but enduring connections with other people. Consequently, one might expect that there are systems in place to ensure that these relationships run as smoothly as possible. Moral rules, I contend, constitute one such system. Moreover the fact that moral rules which are directly concerned with fostering positive human relationships are quasi-universal cross culturally suggests that the need to regulate these relationships might be one of the main reasons we

[37] They are called "quasi-universal" here in recognition that while they can be found cross-culturally, they may not necessarily appear in the individual moral codes that people develop. For while a particular culture or community might have a loose moral code, there can be variation in the moral codes of the individuals in the group that does not cohere with the code of the wider group.

implemented the moral rules in the first place. Richard Joyce outlines a series of broadly conceived moral universals to make a similar point:

> A number of cross cultural studies have unanimously found certain broad universals in moral systems: 1. negative appraises of certain acts of harming others, 2. values pertaining to reciprocity and fairness, 3. requirements concerning behaving in a manner befitting one's status relative to a social hierarchy, and 4. regulations clustering round bodily matters (such as menstruation, food, bathing, sex, and the handling of corpses) generally dominated by concepts of purity and pollution. The first three categories involve interpersonal relations, encouraging one to draw the conclusion that a large chunk of any moral system will be devoted to prescriptions and values that seem designed to protect and sustain social order, to resolve interpersonal conflicts, and to combat the rampant pursuit of individual welfare. In particular, a great deal of the moral domain is devoted to matters pertaining to how humans harm each other (Joyce, 2006: 65).

I will now discuss some of these broad categories in greater detail with an end to emphasising the ways in which morality contributes to the facilitation of human relationships.

Humans as aggressive

Earlier in this chapter I discussed why group living is advantageous to humans. I also suggested that the rise and spread of large groups of *Homo sapiens* gave rise to a distinct disadvantage – the danger presented by other groups of *Homo sapiens* in competition for valuable resources. In the words of Richard Alexander,

> When man developed his weapons, culture, and population sizes to levels that essentially erased the signification of predators of other species, he simultaneously created a new predator: groups and coalitions within his own species. The fact of widespread and essentially continual intraspecific, intergroup human aggression, the closeness of the parallel to forces most readily postulated to account for group life in

> other primates seem to me inescapable facts leading to the conclusion that much of man's evolution has been guided by the effects of intergroup aggression (Alexander,1974: 335).

The idea that human beings have a strong tendency to be aggressive is one that is distasteful to many. Such distaste has perhaps led – amongst other things – to explanations of our sociality in terms of our capacities for altruism and cooperation (Peter Kropotkin's *Mutual Aid* for example). While there is not the space here - or the research available - to establish the precise nature of an aggressive tendency in humans, what does seem clear is that we are not the peace-loving, cooperative animals that many of us would like to believe. On the contrary, we seem unparalleled in the animal kingdom for our capacity for not only inter-special aggression but also *intra*special aggression. Dispute and war have been rife in our history and continues to be so today. In fact, Richard Alexander goes as far as suggesting that it is intergroup rivalry which actually explains the historical increase in group size, on the basis that bigger group sizes afforded more power, and more power assured greater chances of success in situations of dispute (Alexander, 1974: 335).

One of the main ways that societies control aggression is to impose rules against the gratuitous harming of other people. For example, moral rules proscribing murder are ubiquitous cross culturally - indeed some of the most extreme forms of punishment (including death to the offender, somewhat ironically) are metered out for the crime of murder. Murder, of course, is only one example of the type of harm that moral rules seek to prohibit; there are many others. In fact, much of what we consider to be morally wrong is *considered* wrong because it involves some kind of harm, as Richard Joyce points out in the quote provided above. To illustrate, Turiel, Hildebrandt, and Wairtyb conducted a study amongst a group of young adults in order to discover why they thought that incest, homosexuality and abortion were often considered to be morally wrong. They found that those who judged these acts to be morally wrong explained their conclusions in terms of the harm that these acts could engender. On the other hand, those that had no objection to these acts did not mention harm at all (Turiel, Hildebrandt and Wainryb, 1991). It seems reasonable,

then, to conclude that one of the ways that moral rules might contribute to social harmony is by preventing certain types of harm. Prevention of harm, in turn, can contribute to social cohesion by also curtailing other forms of related dispute that might arise from people being harmed in the first place. For example, when people are harmed, or their loved ones are harmed, dispute often ensues in the form of retaliation or retribution; moral rules can nip this type of dispute in the bud by preventing it from arising in the first place.[38]

The examples I have briefly discussed above deal principally with physical harm. Physical harm is, of course, just one amongst many different forms of perceived harm that are prohibited by moral systems throughout the world. The loss of one's property or rights, for example, is also considered a morally objectionable form of harm, and one –moreover - that is also at the heart of many disputes. Consequently, the need to protect rights and properties has ushered in another significant type of moral rule; the moral rule which serves to promote fairness and justice.

Fairness and justice

It is fair to say that quite often war and other smaller scale forms of dispute are the product of the desire to acquire what one has not, or to protect what one has, in spite of whatever lofty rationale is given to them. On a lesser scale, the need or desire to protect or procure for oneself or one's own in an environment where resources are limited will require some kind of regulation to avoid constant conflict. In the words of John Rawls:

> ...although society is cooperative venture for mutual advantage, it is typically marked by conflict as well as by an identity of interests. There is an identity of interests since social cooperation makes possible a better life for all than any would have if each were to live solely by his own efforts.

[38] This is not, of course, to say that all harm is going to lead to social disruption. What one person considers to be harmful may be at odds with what the majority in the social group thinks, for example. In this case, there is not likely to be major social upheaval should the harm occur.

> There is a conflict of interests since persons are not indifferent as to how the greater benefits of their collaboration are distributed, for in order to pursue their ends they each prefer a larger to lesser share (Rawls,1971: 4).

Alongside altruism, then, the moral notions of both justice and fairness become central to the maintenance of cooperative human relationships in protecting the broad range of what are considered by all people to be their *rights*. These might be, for example, property related rights, privacy related rights, or work related rights. Without protection of these rights, it is unclear how a constant state of war and lesser social strife could be avoided for very long. That two of the greater constituents of cross-cultural moral codes - justice and fairness - relate directly to managing humans in social situations further supports the claim that morality is intricately linked to the facilitation of group relations; it seems absurd, for example, to talk about justice and fairness when there is only one person involved, as Hobbes points out in the quote that opens this chapter. It also suggests that humans might have created these rules for just this end, since by creating these rules, they contribute to the assurance that their own rights are protected. As Hume pointed out, "[t]he same self-love...which renders men so incommodious to each other, taking a new and more convenient direction, produces the rules of justice, and is the *first* motive of their observance"(Hume, 1978: 543).

Sexual relationships

Sexual relationships - and the children that issue from them - generate some of the more powerful ties that bind people together. They are also central to much social dispute. According to research conducted by Bruce Knauft, for example, homicide in hunter and gatherer groups is often the consequence of disputes between men about women (Knauft, 1991). It is not surprising then that regulating the relationships between men and women becomes important within human groups to not only ensure a degree of social harmony, but to also ensure adequate nurturing of our children. For example, it is reasonable to suggest that the family unit consisting of a lasting

male/female partnership(s) works well for the purposes of raising children considering the limitations that a woman is exposed to as a result of a prolonged period of child-bearing and rearing. A father that leaves shortly after the conception of a child may well reduce the child's chance of survival.[39] This might explain why some groups have moral rules promoting monogamy, for example. Infidelity, in turn, is often considered to be a fairly major moral transgression, which has even been punishable by death in some countries.[40]

This leads to the next point. There are many rules which target human sexuality; there are rules concerning when and between whom sexual relationships may take place, as well as how they might take place. Morality also regulates issues such as sexual modesty, contraception and sexual initiation. There is also a whole network of moral norms in place to deal with issues such as sexual jealousy (the promotion of "modesty" for example, or, as mentioned previously, moral rules prohibiting infidelity) and to protect against the psychological or physical harm that may occur if sexual relations are undertaken when one of the partners are not considered either physically or psychologically ready (paedophilia and rape are considered to be amongst some of the more grave moral infringements in many moral codes, for example). Earlier in this thesis, incest was discussed, with the conclusion that moral taboos against incest have a cultural rather than a biological explanation. As a further illustration of the link between morality and social cohesion, then, a social – and cultural – basis for the moral rules that proscribe incestuous relationships will now be explored.

[39] This of course is not to suggest that monogamous relationships are the only means of providing adequate care of our children; there are other alternatives that might - and indeed do – seem to work just as well (such as, for example, the communal care that takes place in the Israeli kibbutz system.) Polygamous relationships also have a long history which suggests likewise that they are a successful form of relationship.

[40] Christopher Boehm claims that adultery is at the heart of many serious disputes in hunter and gatherer, tribes, for example (Boehm, 2000: 86).

The incest taboo again

In Chapter 2, I argued that while there might be a weak biological basis for incest avoidance in certain circumstances, the moral taboo itself required further explanation. By way of example, I will focus on how a moral incest taboo might be explained in Australia in terms of its role in promoting social cohesion. To begin with, it should be noted that while incest increases the risk of abnormalities in offspring – a fact which explains why we may have evolved a biological aversion to it – this does not seem to be at the heart of why we have a *moral* taboo which proscribes it. To illustrate via comparison, the numbers of women above forty having children has doubled in the last decade and this in spite of the fact that the risks of down syndrome increase to 1 in 30 for a woman over forty as compared to 1 in 1000 for a woman in her twenties. And yet from a moral point of view, the public reaction to a 40 year old woman risking abnormalities in her child by falling pregnant (which is generally indifference) is very far removed from the public reaction to two closely related kin embarking on a potentially fertile sexual relationship (which is generally condemnation). This implies that there might be other reasons that account for the moral condemnation that incestuous relationships generally provoke. I will make a few suggestions here.

Firstly, explaining why non-consensual sexual relations between parents and children might be considered morally wrong is fairly straightforward. Any sexual relationship which is undertaken against the wishes of one party will generally cause the abused party unnecessary physical and/or psychological harm. As we saw in the previous section, moral rules often serve to prevent the occurrence of unnecessary harm, and so this case falls under that explanatory umbrella. Incest, however, also occurs consensually – and not only between parents and offspring, but also between siblings; if the principal requirements for a sexual union are a loving relationship, sexual and mental maturity and mutual consent, why then shouldn't siblings or parents and their adult offspring partake in such a union if all of these criteria are satisfied?

In seeking out other reasons why incest might be considered a social danger, one might consider its potential interference with the social order at its most basic level; the family. Sandra Scarr, for example, claims that incestuous relationships violate the familial environment and the bonds created therein (Scarr, 1992). As these bonds are considered central to the normal development of a child, their violation increases the possibility of an insecure, unstable future for the child in question. In the words of Spiecker & Steutel:

> If incest is a perversion...it is a perversion, not of the sexual act, but of the familial relationship. In this violation of a domestic tie the moral nature of incest is revealed: in incest the existing filial relation is destroyed and another, which is incompatible with it, is superimposed upon its ruins (Spiecker & Steutel, 2000: 289).

By way of illustration, in a significant proportion of Australian families, a monogamous sexual relationship is formed between two parents and children are the issue of this relationship. The family, in turn, becomes an important unit which serves, amongst other things, to ensure that these children are well cared for. An incestuous relationship between a parent and adult offspring is likely to cause disruption to the family unit on several levels. Firstly, it is a violation of a monogamous bond. More particularly, however, such a relationship confuses – and even abuses– the designated roles within the family since a filial relationship usually involves the parent as the authoritative figure, and the offspring as the dependent. As Spieker and Steutel argue, as emotional dependence may often last beyond childhood and adolescence, a sexual relationship could be seen as an abuse of authority or dependence much in the same way that a sexual relationship between doctor and patient is seen as an abuse of authority and trust. It is thus unclear whether consent to a sexual relationship can ever be fully free of the binds that these aspects of the relationship create (Archard, 1998). Moreover, a sexual bond between offspring and adult might prove difficult to break later on – because, for example, the filial relationship that precedes it cannot be broken – and thus might interfere with a child's ability to form relationships with others later on (Card, 2002: 174).

Of course whether or not incest will have these effects will often depend on the cultural boundaries that have been set up in a social group. One of course can imagine situations in which incestuous relationships do not cause the problems that have been outlined here. The fact that incest taboos exist in most societies, however, indicates that people recognise the potential dangers incestuous relationships might engender both in terms of born and unborn offspring and have sanctioned them accordingly.

The "thou shalts"

Thus far my discussion has been focused on moral prohibitions. Alongside the myriad of moral injunctions that exist cross-culturally are moral prescriptions which directly *encourage* the performance of peaceful, cooperative and kind actions, as well as beliefs and attitudes which are conducive to social cohesion. These include moral tenets such as altruism – and altruism, moreover, that is not performed with the expectation of reciprocation but is rather performed for the sake of doing something kind or helpful for somebody else.

More particularly, there is a whole series of "virtues" that are promoted as part of moral codes; they regularly include traits such as kindness, trustworthiness, generosity, selflessness, diligence and temperance. In a social sense, these virtues serve to prevent potentially damaging behaviour by attempting to shape the character of moral agents in the first place. As will be discussed in Part Three, the formation of morally sound characters brings its own reward in the form of improved social relations; people are far often more likely to want to connect with people who are apparently virtuous, rather than those who are obviously morally suspect, for example. The encouragement of moral virtues, therefore, is a vital key to the facilitation of large scale cooperation and social harmony.

3:3 The transition from social to moral rule: The beginnings of an explanation

Thus far, I have suggested ways in which moral rules might play a role in enhancing our survival chances by managing conflict, reducing the incidence of harm and encouraging cooperation. In doing this, they in turn contribute to the cohesion of social groups, which also makes evolutionary sense since social living is an optimal way of living for humans. What I did not do, however, is explain how the transition from *social* rule to *moral* rule actually occurred. In this thesis I will be arguing that the answer to this question is a complex one, involving a long period time (about which we know preciously little) and different elements of both human biology and the environment in which they live (about which we are only beginning to form an understanding). My answer will consequently require attention to these various details, and will also be highly speculative. What does seem clear is that morality is intimately linked with social coordination both in terms of origin and role. Indeed, even today the line between the two is somewhat hazy.[41]

So far I have suggested that much that is considered to be morally right or wrong largely serves an "instrumental" role. In the introduction of this thesis, however, I suggested that moral concepts are actually *used* to express non-instrumental categorical, rather than hypothetical imperatives (borrowing Kantian terminology). In arguing that what we take to be categorical imperatives are actually hypothetical imperatives, I am thus suggesting that we are obviously mistaken in believing that they are in fact *categorically* binding. How it is that we are able to be mistaken in this way, then, requires explanation. In Part Three I will provide a detailed explanation of how our capacity to feel emotions contributes to our belief that moral rules (attitudes and characteristics), such as the ones I have discussed in this chapter, are categorically binding. In this section, however, I will simply start with the observation that this is what is implied when we use moral concepts – that is, we

[41] In Part Three, for example, I will argue that we can even draw a (rather ill-defined) line between what I will call "public morality" (the moral code of the social group into which we are born) and "private morality" (the moral code we come to embrace ourselves). There is likely, of course, to be considerable overlap between the two.

consider that they are categorically binding. I will then suggest that the appearance of moral rules can be partially explained with reference to (A) the fact that the moral concepts we use to enforce them signal that we consider the rules to be of utmost importance and (B) (more divisively) the power and authority moral concepts themselves wield.

I will consider option (B) first. It is conceivable that moral rules partially have their origin in the language of moral concepts which imply, or express the belief, that some actions, beliefs and attitudes are categorically right or wrong – as mentioned above. By way of illustration, in the previous chapter I suggested that incest taboos are an important means of protecting individuals from a number of harmful consequences. The seriousness with which we imbue these harmful consequences might lead us to not just explain them with reference to these consequences, but rather with reference to them being just "wrong". The word "wrong" itself implies for many people that there is some kind of objective truth about which we can be right or wrong in the first place, which is why morality is often taken to correspond to mind-independent moral facts about which we can be "right" or "wrong" in the first place. This is a point that Mackie also makes. In his words,

> ...by suppressing any explicit reference to demands and making the imperatives categorical we facilitate conceptual moves from one such demand relation to another The moral uses of such words as "must" and "ought" and "should", all of which are used also to express hypothetical imperatives, are traces of this pattern of objectification (Mackie, 1977: 44).

What I suggest, then, is that moral concepts might be actually *used* as a means of curtailing further argument, or, to borrow from Daniel Dennett's terminology, they might be used as "conversation stoppers" (Dennett, 1995: 506). The power that such language wields could be instrumental in ensuring that incest, for example, occurs as

infrequently as possible.[42] This of course implies that morality is used merely as a means of controlling the behaviour of its adherents, and that the idea of moral right or wrong is - or has been - just a "useful fiction" imposed because it is so effective in ensuring that certain behaviour is embraced or rejected.[43] For what better way is there to ensure that people's behaviour is controlled than to insist that there are certain types of behaviour that are universally and objectively prescribed – not just by the ruling parties – but ultimately.

While I maintain that the authority moral concepts wield might *contribute* to an explanation of how moral rules may have come to be distinguished from other rules – and, for how moral concepts such as right and wrong may have been (and almost certainly still are) used in the past – I acknowledge that it would be preposterous to take this to suggest either that our leaders and legislators have always been so deliberately divisive or that people have always and continue to be systematically misled by their leaders. Rather, much that is retained in the moral codes of different cultures does not seem to be the product of deliberate deception, but because people – including the people in power – have actually come to *believe* that there *are* attitudes, traits, values and behaviour which are extremely important, an idea expressed by (A) above. Moral concepts, then, may also have arisen as a means of simply representing the *belief* that some rules are of fundamental importance whereas others are not. For example, John Mackie suggests that religion might help in part to explain the objectification of moral concepts. He argues that it would have been important historically to differentiate God's "Divine Law" from human law; couching it in terms of categorically binding imperatives - such as the moral "ought" - would have served such a purpose well (1977: 45). Peter Singer makes a similar point with regards to why we might consider certain actions morally wrong:

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[42] This is only part of an explanation for how we might come to see incest is wrong. I have not totally discounted the contention that biological mechanisms which produce repulsion to the idea of incest also contribute to our belief that incest should be avoided. I will take this up again in Part Three.

[43] I have borrowed the term "useful fiction" from Richard Joyce. It is taken from a paper about Michael Ruse and the moral error theory. In this paper he argues that instead of abolishing morality because it is based on erroneous premises we should retain it because it is a "useful fiction" and as such "... it can still have a practical role in our lives"(Joyce, 2000: 729).

> On abortion, suicide, and voluntary euthanasia, for instance, we may think as we do because we have grown up in a society that was, for nearly 2000 years, dominated by the Christian religion. We may no longer believe in Christianity as a moral authority, but we may find it difficult to rid ourselves of moral intuitions shaped by our parents and our teachers, who were either themselves believers, or were shaped by others who were (Singer, 2005: 345).

Of course, while there is most certainly a link between religion and morality, it too is unsatisfactory as a blanket explanation for why we have come to see some rules as moral rules. This is evidenced by the simple fact that there are many people who do not believe in God, and yet still consider themselves to be deeply moral people. An explanation of moral concepts as expressions of Divine Law contributes nonetheless to my explanation of how morality may have developed from ordinary rules. In the sections to come, I will build upon the explanations I have given here. I will now move on to Part Two where I attempt to address some of the other explanatory gaps a purely prosocial of morality leaves open.

Summary

This chapter has briefly explored some of the ways in which moral rules might serve the fitness enhancing end of assuring cooperation and social cohesion. In fact, the very existence of certain rules can plausibly be traced to their contribution to this end, suggesting that humans introduced them for this reason. Exploring their role in regulating social groups also emphasises the contributory role that morality plays in enhancing individual survival prospects, since social groups themselves are an advantageous way of life for humans. A plausible link between moral rules and biology has thus been made.

General Conclusion: Part One

In Part One, I have argued that there is not a direct link between certain adaptations and the fact that we see the behaviour which they influence as morally right or wrong. The little evidence that has been offered up in the past that suggests that there might be such a direct correlation either does not accord with what is understood by moral behaviour (kin altruism), or else seems to merely coincide with behaviour that is considered moral (incest taboos).

This conclusion does not, however, entail the further conclusion that biology and human evolution have nothing at all to do with morality. In discussing the link between human biology and morality we arrive at the second major conclusion of Part One; that morality serves human survival requirements by fostering human cooperation and both encouraging and protecting certain social relationships. Cooperation, in turn, helps promote human survival inasmuch as living in groups is a fitness enhancing way of life for humans. Moral rules could thus be perceived as being fitness enhancing in certain circumstances. Indeed, in some cases, moral rules even serve to fill the gaps that our biological inclinations might leave open. In the words of David Lahti, morality operates as a "...cultural surrogate for genetic adaptation" (Lahti, 2003: 650). In this chapter I have offered examples of the way in which this might occur via certain moral rules we create to manage human behaviour. I also provided several preliminary hypotheses about the way in which these social rules may have made the transfer to moral rules.

The prosocial role of morality, however, is not the only connection that exists between biology and morality. In Part Two, biology will appear centrally in my explanation of why we have morality, but in a more indirect way; that is, via its provision of the biological traits required to not only formulate morals, but to also become motivated to uphold them. I will also argue that while morality serves fitness enhancing purposes – indeed may have originated to serve this role - it has developed into something quite different. This development will be the traced throughout the remainder of this thesis.

Part 2: Morality and Sociality

> ***Morality is ... closely related to politics: it is an attempt to bring the collective desires of a group to bear upon individuals; or, conversely, it is an attempt by an individual to cause his desires to become those of his group (Russell, 1999[1935]).***
>
> ***Compared with other animals, behaviour in the human species is extremely varied. Individuals belonging to different human groups exploit a wide range of habitats using a variety of disparate subsistence techniques; they utilize widely different kinds of clothing and shelter, perform different rituals, depend on different kinds of social and political organization, and speak different languages. Although it could be argued that the social organization and adaptive strategy of most human groups are similar to those found in some other species, there is no other single animal species which exhibits the range of behaviours that characterise the human species (Boyd & Richerson, 1985: 158).***

General Introduction

In the introduction of this thesis I outlined different ways that one might feasibly establish a causal connection between biology and morality. In Part One, the possibility that moral behaviour might be genetically determined was briefly explored. This was mainly to highlight the fact that human traits - such as behavioural traits, for example - are not the product of genes alone but rather the interplay of genetics, general physiology and environment, with contributory bias fluctuating according to the particular trait in question.

The next step in the search for a plausible link between biology and morality was to consider whether and in what sense moral *rules* could be explained in terms of biological adaptation. To this end, specific moral rules were isolated to see whether or not they could be considered formalisations of specific biological adaptations. For two types of "universal" moral rules - the incest taboo and rules promoting kin altruism - such an explanation was shown to be drastically incomplete. This is because the adaptations producing aversions to incest and inclinations to help kin are not substantial enough to account for either the existence of moral rules which pro and prescribe the same behaviour, or, in particular, the belief that they are categorically binding. What were called "cultural explanations" were offered as

complements to the biological explanations, with the conclusion that it is unlikely that there are "moral adaptations" to explain our moral rules.

I then suggested that moral rules while not the direct product of adaptations themselves may still be considered *fitness enhancing*. This was based on the argument that group living is an advantageous way of life for human beings, providing as it does important fitness benefits to individuals. Living in a group, however, requires a structure and regulation: without it, the group and its constituents would be under constant threat from the clash of disparate individual needs and wants arising from within the group. In the absence of biological traits that adequately regulate relationships in the group, they will need to be regulated by rules devised by humans themselves. Morality is - in at least one important sense - a subset of these rules, and as such has a fitness enhancing role to play. This was one of the principal claims to surface at the end of Part One and is one which has been embraced by a number of famous philosophers in the past, such as Thomas Hobbes (1651) and John Rawls (1971).

But while this argument seems plausible - and when applied to a certain subset of moral rules *is* highly plausible - I will nonetheless conclude that a prosocial explanation of morality is in fact inadequate if taken to be the *sole* explanation for why and how morality developed. The following "issues" encapsulate why this is so:

- **Issue 1.** Firstly, a purely prosocial account of morality is not adequately representative of morality because it does not explain why there is so much cross cultural variety in moral rules throughout human groups, when the goals – according to a prosocial account - are ostensibly the same; i.e., to facilitate cooperation in groups.

- **Issue 2.** Secondly, it also does not account for moral rules that seem to have little, if anything, to do with socially cohesive behaviour.

- **Issue 3.** Thirdly, it does not explain *how* it is that we come to form moral rules. If we are not genetically programmed to behave thus, how is it that we learn or decide what is appropriate moral behaviour?

- **Issue 4.** Fourthly, it does not adequately explain how we become motivated to behave in accordance with these moral rules.

- **Issue 5.** Finally, and most importantly, it does not adequately explain how we come to believe in the moral concepts of "right" and "wrong" (as described in the introduction of this thesis) which are the key features of morality that separate it from other human rules. [44]

So while a social contract like theory like the one I sketched in Part One might help explain certain aspects of morality - and indeed one of the important roles morality has always and continues to play - on its own, it is insufficient as an explanation of key features of morality. As a partial response to some of these issues, I will focus on environmental considerations in the first half of Part Two to determine the extent to which these are able to fill in some of these gaps.

Firstly, I will discuss social environment in the form of human culture. To commence this discussion, I will provide a definition of "culture" in which I describe it as a phenomenon which - amongst other things - differentiates human social groups not only from each other, but from other social groups in the animal kingdom. I will also define it as a collective term for particularities that different environments have wrought in human groups. Some of these particularities also issue from different beliefs about the world and our place in the world (captured in the various religions, for example), and include the norms and traditions to which these beliefs give rise. As morality is shaped by these different sets of beliefs, norms and traditions, in discussing how cultures have developed I will come part way towards an explanation

[44] This is the feature of morality that both Ruse and Joyce seek to "explain" in terms of adaptations.

of cross-cultural variety of moral rules, thereby partially addressing Issue 1 above. I will also have presented one of the major shapers of moral rules and beliefs.

Issue 2 will be addressed via a discussion of the extent to which apparently different moral codes really differ. I will briefly examine cultural determinism with a view to revealing errors that a "nurture only" view of morality generates. This will also pave the way for a discussion of whether varying moral tenets can be reduced to common values and to what extent they can realistically be considered means of promoting cross-culturally common prosocial ends. That such a reduction is not possible will further highlight the conclusion that morality is something more than "prosocial glue".

This section will conclude with the view that although there is a series of common values that span human social groups, there is also significant, irreducible variation which is partially the product of questions about life, its meaning and the beliefs to which these questions and their proposed answers give rise. These beliefs, in turn, are heavily influenced by the collective beliefs of the cultures in which we are raised. Moral tenets which appear to have nothing to do with fostering social cohesion often arise from these differing answers about what is and is not of value in life.

Underlying these observations is the question of *how* morality, human culture and the rules, beliefs and practices they represent, have been able to develop. Part of the answer I propose will refer to my definition of culture as a term which groups - amongst other things - features of human society that are learned and/or developed by its members during their lifetimes in response to the needs or wants of the given group. These features are then taught to other members of the group who may, in turn, change or reject them in accordance with their perceived needs and wants. Included in this class of learned features are beliefs, traditions and the rules that regulate the group. Some of these rules are moral rules. In sum, these are features which are *learned* as opposed to being features with which we are born.

The discussion up to this point will seem to have wandered far from biological adaptation – and deliberately so. For in highlighting the role that culture and environment play in shaping moral rules and beliefs, Joyce's contention that morality is an adaptation seems even less likely. In the last chapter of Part Two, however, adaptations will reappear in the discussion. Here I will argue that while we may not be born with beliefs, traditions and rules, we are able to develop them because humans have evolved a set of biological capacities which have *enabled us* to develop them. To explore this connection, a discussion of capacities which appear central to the formation of culture and morality will be made. These will include, notably, the abilities to imitate, learn, communicate, and reflect. I will argue that while these capacities are themselves the product of heritable biological traits, some of the cultural constituents to which they give rise – including morality - are not heritable in a biological sense; they are, however, heritable in a social sense since many of them are passed on to us by previous generations via a process of teaching and learning. This section will thus contribute importantly to my argument that morality is a *bi-product* of biological adaptation. It will also contribute to an understanding of "Issue 3"; that is, how we come to determine and/or learn what is appropriate moral behaviour. While it is not a complete answer to Issue 3 (as will be discovered in Part 3 where moral motivation is specifically addressed), it does account for some of what we acquire in terms of moral rules.

Finally, this section will also include a comparison of skills and capacities - or lack thereof – of other animals. Such a comparison will serve to demonstrate why morality seems to be a human phenomenon and when it is likely to have arisen in the lives of our ancestors. This will also strengthen the argument that morality is the product of human evolution, rather than an independently existing code that we somehow "intuit".

The cultural and social aspect of morality, however, is only part of an adequate discussion of the nature of morality. Still missing is an explanation of the motivational force morality wields via belief in the moral "right" and "wrong."

These aspects of morality - captured in Issues "4" and "5" of this introduction - will be addressed in Part Three. Indeed the entire of Part Three will be devoted to these issues, since they are central to an understanding of what it is to think and behave in what is considered a moral way. All that is presented in this Part, however, will be relevant to the question in providing the background required for addressing these specific aspects of morality.

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In this part of the thesis, then, I will consolidate my argument that morality is the product of the interplay of environment and biology. This will serve as evidence that morality is not as simple as adaptation-based explanations might suggest. Rather, I suggest that morality is like a mosaic composed of different aspects that derive from varied sources. What should be noted here, though, is that in this part of the thesis I will talk mainly about moral rules in a way that does not significantly distinguish them from other rules. This is because I maintain that the origins of morality lie in the historical emergence of rules that manage humans in social situations, and as such the ability to make moral rules involves some of the same abilities we employ to make other rules. I also maintain that morality still serves this social-management role and that moral rules are sometimes even used specifically for the force that they wield. Issues 4 and 5 above, however, are recognition that morality is actually considered significantly different to other types of rules. This aspect of morality, as mentioned, will be treated in detail in Part Three.

Chapter 4: Culture, environment and behavioural variety

> ***Given the range of adaptive problems that humans face, there is not reason to expect a single principle that governs interactions between the mind and the environment. In some domains, developmental malleability makes sense; in others, it does not. Sometimes adults should hate the new, when a loved one dies, for example; sometimes we should embrace it, such as when starting a promising relationship. The relationship between the mind and the environment is too complex for a one-line theory (Bloom, 2006: 28).***

Introduction

I have identified five problems associated with an explanation of morality uniquely in terms of social utility. In this section I will address the first of these: the issue of why there is so much variety in moral codes if the prosocial goals are essentially the same. This discussion will contribute to the addressing of Issue 2 – the observation that not all moral rules can be explained in terms of their contribution to social cohesion. It will also feed into Issue 3, which questions how moral rules come to be formed, understood and obeyed by humans.

This chapter will also contribute importantly to the argument that morality is not an adaptation, since I will argue that much of the content of moral codes is the issue of human *decision* that it will be so. That this is the case is evidenced by the relative rapidity with which moral rules change, suggesting that they are sometimes selected by humans in response to perceived wants and needs: it would be difficult to explain how an evolved adaptation could track such need so precisely.

4:1 The impact of the environment on behavioural diversity

In Part One I suggested that group living is a fitness enhancing way of life for humans and that morality, when concerned with facilitating cooperation within these groups, becomes fitness enhancing itself. But while it is true that morality is often concerned with facilitating cooperation, there is nonetheless considerable cross-

cultural variation in moral rules. Here I will argue that this is partially the consequence of environmental variation. I will propose, for example, that different physical environments present different needs and wants to which humans respond by creating structures and rules to adequately meet them. Some of these rules will be moral rules.

To illustrate, one might consider similar hypotheses that Jared Diamond forwards in his epic *Guns, Germs and Steel* (Diamond, 1997). For Diamond, something as seemingly basic as availability of food and shelter can dramatically alter cultural practice. In fact, he goes as far as attributing many major cross-cultural differences to physical environment. His book is framed as being an explanation of how it is that people like some of those in certain New Guinean tribes remain so technologically behind the Western world. His answer is that differences in what he calls the "long term histories of people" are "... due not to innate differences in the peoples themselves but to differences in their environment" (Diamond, 1997: 405).

By way of elaboration, Diamond isolates a handful of major environmental features that he considers to be the primary sources of cultural variability. For example, he discusses the historic availability of domesticable plant and animal species. According to Diamond, high availability of both in certain areas enabled their populations to not only produce enough food to sustain larger numbers, but to also create food surpluses which could be used to liberate people from duties associated with food procuration. This allowed a greater section of the populace to partake in other fields of specialization, such as concentration on technological advance, for example. The increase in technology in turn facilitated many aspects of certain lifestyles which meant that people could afford to raise and care for larger families.

Another major contributing factor to cross cultural variation Diamond discusses is the access different populations themselves have had to each other. Ability to access other cultures enables not only exchange of goods, but also ideas. For example, countries such as Australia have historically had very limited access to other major

cultures because of the water barrier, whereas the sheer size of the Eurasian landmass enabled a much more rapid spread of both goods and ideas, enabling these areas again to advance much more quickly than the early indigenous Australians in terms of food production and technology.

Whether or not one accepts the entirety of Diamond's claims - and his reductionism does seem somewhat excessive at times - he nevertheless convincingly demonstrates via rich and varied examples the considerable effects environment has on human organisation, development and behaviour (further corroborating the conclusions from Part 1). Importantly, his examples also suggest an impressive behavioural plasticity in humans that seems to enable them to adapt *themselves* so readily to new environments. This in itself is an excellent example of the interplay of biology and environment in the matter of the determination of human behaviour.

Environmental diversity has also contributed to variation in another type of environment – the social environment. I will now discuss the way this environment – particularly those aspects of social environment captured by the term "culture" - shapes the behaviour and beliefs of its population. For while physical environment may produce different needs, it is usually the social group which will determine *how* exactly these needs will be met. Part of the way they do this is via moral rules, which themselves will vary in accordance with these different needs.

4:2 Culture

> ***[Culture is] that complex whole which includes knowledge, belief, art, morals, law, custom, and any other capabilities and habits acquired by man as a member of a society (Tylor, 1920:1).***

It seems reasonable to suggest that humans have always lived in groups. These groups, however, have become extremely diverse. Today human social groupings range from smallish tribes to huge cities comprising millions of people. Some of these groups have been maintained over generations, developing and accumulating rules, hierarchies, rituals, beliefs and traditions that are passed on, modified and

added to by future generations. These elements are referred to collectively as human "culture".

Throughout Part Two, I will explore human cultures along side morality since they constitute an essential part of the explanation of the origin, function and nature of morality. This is largely because they are interconnected in the following ways:

1. Culture is a major shaping force of morality. In particular, culture, as representative of the beliefs and goals of different groups of people, will shape the type of values and rules that are required to adequately represent them. Some of these values and rules will be moral values and rules.

2. The constituents of culture - including a contingent of our moral codes - are acquired by social learning. This type of learning enables humans to adapt *themselves* to their environment.

3. The capacities that enable social learning - such as the capacity for language and imitation - have thus been instrumental in the development of both cultures and morality, though indirectly. Many of these capacities are widely considered to be adaptations selected because they facilitate aspects of social learning, thereby enabling humans to partake of fitness advantages social living affords. They are not, however, adaptations selected for the generation of either morality or culture directly. Rather, morality and culture emerged as bi-product of these capacities.

Culture, then, adds to the mosaic of morality that this thesis seeks to construct by being a central explanatory motif. Before discussing these points, however, the term "culture" needs to be more carefully defined.

What is Culture?

Culture has many facets, rather than one defining characteristic. Firstly, it serves as a means of amalgamating the characteristics that differentiate one human group from another. There is, for example, a certain range of universal human – indeed animal - behaviour: we all spend time securing food and shelter, reproducing, and caring for our young, for instance. Over and above this, however, there is significant behavioural variation: we might all seek shelter, but the type of shelter may vary; we might eat different kinds of food, and raise our young in completely different ways. Moral rules are also among the list of variable features of social groups. The word "culture" serves as a collective word that represents these differences.

Culture is thus borne of diversity. It is the extent of cultural diversity, moreover, that is one of the definitive differences between human and non-human social animals. This is not to say that other species do not exhibit intra-special variation in group behaviour: they are usually not, however, considered either frequent enough or sufficiently different to warrant calling them "cultural" differences. The fact that chimpanzees undertake different eating practices according to where they live (even if similar food is available in both areas) is not generally considered a cultural difference, for example.[45] For some, it is not clear why this is the case, however.[46] I contend that it is because the term culture is used to group behaviour which goes *beyond* the practices required to ensure basic organismic survival and perpetuation. For example, humans spend a lot of time entertaining themselves via a whole plethora of activities including sports, music, and art. Many of these pastimes are practiced

[45] For example, chimpanzees in Tai undertake the practice of picking marrow out of the bones of their prey whereas in Gombe this does not occur in spite of the fact that chimps in Gombe eat the same prey as those in Tai (Boesch & Tomasello, 1998: 594).

[46] The question as to whether this could be considered "cultural variation" is a topic which has generated a lot of debate which this thesis has insufficient space to present. For an interesting discussion of this question, see Kevin Laland and William Hoppitt's article "Do Animals Have Culture?" (2003).

for the simple pleasures that they bring, rather than for any survival benefits that they might afford.[47]

It might yet be argued, however, that these characteristics can be found in groups of people that we might be reluctant to call cultures. It would seem, for example, somewhat exaggerated to refer to regular participation in a Wednesday afternoon squash tournament as being part of a "culture". While this points to the flimsiness of the line between culture and group – and it does sometimes seem to be a fine line – it still suggests that there is something perhaps missing from the definition.

And so we arrive at a third characteristic. The word "culture" seems to represent something more than intragroup behavioural difference. In fact it represents what could be considered the heart of many of these characteristics: that is, the *beliefs* a particular group maintains about the world which may in turn create behavioural differences. For example, one would be more likely to talk about a "surf" culture than a "parents and friends" culture, on the basis that the former includes a set of beliefs about the world, and a series of behavioural norms and values based on these beliefs. As these beliefs are often inspired by speculation about the world and our place in the world, they are bound to be different since definitive, uncontroversial answers to these questions do not as yet exist. Someone who is part of a surfing culture, for example, may believe that surfing gives their life some kind of "purpose" or "meaning" and might thus allow it to influence their daily activities, their values and priorities, the friends that they make and the clothes that they wear. For instance, they may believe that protecting the coastal environment is of utmost importance and might undertake practices which contribute to this protection. As such their *moral* code might include the belief that it is *morally wrong* to damage the environment. Lifestyle choices might include decisions to live close to the beach or jobs that allow flexibility to surf.

[47] In fact, many pastimes people choose can be detrimental to their health; risky sports, over consumption of fatty or salty foods, alcohol and drug consumption, excessive sedentary activities such as television watching and computer games.

Belonging to a Parents and Friends group, on the other hand, does not seem have such far reaching effects on one's lifestyle. Likewise belonging to a gardening club is unlikely to infiltrate one's life in ways other than one's choice of a pleasant pastime. For both of these groups are not so much about leading a certain type of lifestyle based on a set of beliefs about that life, as they are about focusing on a certain *aspect* of life.[48] In sum, culture tends to be more pervasive, permeating one's lifestyle in a more comprehensive way. As such it constitutes a social environment which is a major shaper of human behavioural choices including the moral rules we enforce to shape this behaviour.

Finally, another important aspect of human culture is the way it develops. For culture as a collective of differences is also representative of the human ability to change or add to existing behaviour, beliefs and norms not only from generation to generation, but also within single lifetimes. This process has been called the "ratchet effect" (Boesch & Tomasello,1998: 602) and is enabled in particular by our capacity for "social learning", a capacity which enables us to effect changes ourselves, rather than being reliant on the long slow process of biological selection to produce the changes. It is a capacity which explains why differences between cultures have become so significant in such a short period of evolutionary time, particularly when added to the fact that physical contact with other cultures is limited – which helps explain, for example, why Yali's Papuan culture may seem so different from Diamond's American culture. Indeed, some even define culture as the product of the accumulated changes acquired in this way.[49] If moral rules are so divergent from culture to culture – which I will argue in the next section – this suggests that they too might be the product of social learning and the ratchet effect it produces. This further lengthens the leash that Wilson proposes between culture – and in my version, morality – and genes.

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[48] They might become cultures, of course: it depends on how seriously one's participation extends to one's life.

[49] Joseph Henrich and Richard McElreath define culture in such a way, for example (Henrich & McElreath, 2003: 124).

Including social learning as a defining feature of culture broadens the gap between humans and other animals. The transmission of learned skills is rare in other animal groups; in fact evidence of new skills being developed and passed on even within the current generation is so rare that the same examples appear time and time again in discussing the possibility of animal culture. One oft-cited example involves a group of Japanese Macaques who were witnessed washing sand off sweet potatoes in a nearby river, behaviour which alone already seemed somewhat innovative for non-human primates (Kawai, 1965). What was even more interesting was that the practice was then "passed on" to other members of the troop. Another well-known example of "cultural transmission" in non-human groups is the opening of milk bottle tops by blue tits (Hinde and Fisher, 1951).

The rarity of such examples suggests that the capacities in place for the development of sophisticated cultures and their moral codes are either not there or if they are, that they are so rudimentary that their expression is considered an occasional anomaly; they do not compare, for example, to the vastness of the behavioural repertoire learnt by a child growing up in a human group. It suggests a point of departure in the evolution of cognitive ability which also – if we are to view morality as a partial product of social learning, as I am arguing – explains why morality seems to be a feature of human life only. This, however, is jumping the gun somewhat: these capacities will be discussed in greater detail in the sections to come.

Summary

To conclude, the word "culture" can be defined as a collective term for the different ways human lead their lives and the activities they undertake that go above and beyond those that ensure basic survival. In particular, it represents the different beliefs various groups of people have about this life, and the behaviour to which these give rise. It also serves as a differentiating tool, not only between other human groups, but also between other animal groups that do not manifest either the extent or the nature of behavioural variation. I suggested that this is because they do not have

the capacities required for social learning which are central to an explanation of why cultures and their constituents – most notably moral rules – arose in the first place. That culture and morality are bi-products of these capacities will be argued in Chapter 6.

In the introduction to this chapter, three principal links between culture and morality were outlined. I will now consider the first of these – that is, the contention that moral rules are often deliberately chosen and or shaped by humans to represent the cultural beliefs we have formed.

Chapter 5: The issue of cultural and moral variation

> ***Darius, after he had got the kingdom, called into his presence certain Greeks who were at hand, and asked– "what he should pay them to eat the bodies of their fathers when they died?" To which they answered, that there is no sum that would tempt them to do such a thing. He then sent for certain Indians, of the race called Callations, men who eat their fathers, and asked them, while the Greeks stood by and know by the help of an interpreter at what was said – "What he should give them to burn the bodies of their fathers at their decease?" The Indians exclaimed aloud and bade him forbear such language. Such is man's wont herein and Pindar was right, in my judgement, when he said, "custom is the King of all (Herodotus).***[50]

Introduction

In Part One, I suggested that humans devise rules – including moral rules - to manage human relationships in non-kin based groups. So far in Part Two, I have suggested that part of the reason why these rules might vary is because of environmental differences and the way in which humans respond to these differences. In particular I have focused on human culture because it represents not only the different responses to environment (including beliefs about our environment), but also the fact that we are able to both have these responses – and, importantly – change them when required. It also represents the fact that human life is not all about survival and reproduction: as such, while moral rules (which are shaped by cultural beliefs) might be principally concerned with fitness enhancing ends there will also be moral rules which reflect considerations that we have developed above and beyond survival matters, as represented in Herodotus's famous quote above.

In this chapter, I will focus more directly on cross cultural variety of moral rules. I will start by considering the extent to which it truly exists. For example, while many moral rules appear to be quite different, it has been common practice in Ethics to argue that many differences in moral principles are often superficial and that there are

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[50] This quote is taken from Herodotus' *History*. I came across it in Egbeke Aha's "Changing moral values in Africa: An essay in ethical relativism (1997: 531).

core universals underlying many of them.[51] Establishing where I stand with regards to this issue will help me consolidate a point central to this thesis which hinges on these conclusions. This is the argument that morality, while instrumental in promoting social cohesion, has also gone far beyond such concerns to areas which have little or nothing directly to do with survival and perpetuation. That it has done so, however, does not mean that it cannot be accounted for by human biology. The account I will provide, however, links the two back together in a rather circuitous fashion.

5:1 Moral diversity

As an interesting illustration of the interplay between environment, culture and morality Peter Wilson considers two different lifestyles; a nomadic hunter/gatherer versus a sedentary "domesticated" lifestyle (1988). He explains how these different lifestyles appear to (A) impact on the moral rules adopted in each culture (B) contribute to cross cultural variety of moral rules. For example, Wilson examines how the acquisition of material possessions might influence the moral rules adopted. Sedentary groups, for example, might invest substantial resources into setting up a home and perhaps a farm, whereas the hunter gatherer barely wastes resources on housing and artefacts because of the need to move around in pursuit of seasonal food. The sedentary farmer – being sedentary - also has the opportunity to accumulate more material goods and property. This, in turn, gives rise to the need to both control the accumulating process and protect the products once they have been acquired. The risk of theft, for instance, increases with the accumulation of objects. Also, if one is in a confined area, resources will become limited so deciding who has access to which resource becomes an issue of great importance. One can imagine then how moral rules promoting justice and fairness might become more important or at least of a different nature in these two types of social grouping.

[51] In Herodotus' example, for instance, the different funeral procedures could be interpreted as being different means of showing respect to the deceased: the same value, but different procedures.

Secondly, when people are settled more permanently together population dynamics become quite different to those of a nomadic lifestyle. For example, it becomes much more difficult to just walk away from conflicts that arise with one's closest neighbours. This might entail the need for more stringent regulation of human relationships. In the words of Wilson:

> Settlement compresses people together more intensively and for longer periods than living in a temporary open camp. Frictions between people that might otherwise be defused by a simple parting may smoulder ignition in the domestic situation. The development of property in goods and land provides a new and major source of contention and wariness between people (1988: 146).

Living in a single area for a lengthy period of time also permits greater regularity. Regularity, in turn, enables rules to be fixed more readily, since circumstances have limited variability and thus lend themselves to a generalization process that is more appropriate to fixed rules. A nomadic lifestyle, on the other hand, must incorporate much more flexibility in keeping with the changing environment through which they travel. According to Wilson, hunter gatherers often do not have the tight rules and structures of the sedentary because of "...a way of life that rides with the environment instead of attempting to control it" (Wilson, 1988: 34). Moreover, because the emphasis on developing and maintaining independence in a hunter gatherer milieu is so important, rules that regulate cooperation and competition may not be as important as in a domesticated society (Wilson, 1988: 52). In a culture such as our own in Tasmania, for example, we are far more dependent on the work of others to ensure our survival; we are a culture of specialization in which each individual usually focuses on a specific trade and mostly relies on others' work to satisfy needs and wants that arise outside of this specialization. If there are not appropriate rules for cooperation, particular needs may not be met.

Jared Diamond also comments on the effect that each type of lifestyle might have on the reproductive tendencies of people and the implication this has for the social

structure, rules (both moral and otherwise) within the society. He remarks that a nomadic woman is limited in her capacity to bear many children successively due to the difficulty of moving around whilst heavily pregnant, nursing, or recovering from childbirth. Moreover, many small children can also be burdensome in that they risk slowing down the migratory speed. Ensuring that numbers are kept low may mean that commonly morally condemnable practices such as infanticide and abortion become more acceptable in these cultures. Sedentary women, on the other hand, have no need to move around from place to place, and hence can usually afford to have more children. Consequently, sedentary groups tend to be far more populous (Diamond, 1997: 89). .

These are broad, somewhat generalized examples but they are nonetheless plausible illustrations of the way different lifestyles might give rise to different moral rules. The physical or social environment produces the need – in the above case, the need to be unencumbered by too many children – and the social group creates the means of ensuring this does not occur. This may be by way of imposing *moral* rules.

5:2 Cultural determinism

It seems plausible, then, that cross-cultural variety in moral rules can be partially accounted for as a consequence of humans actively responding to their environment and adapting their moral rules to suit these environments. But can all moral rules be explained in such a way? One means of investigating this question might be to examine how far such an explanation can plausibly be extended in order to see if the conclusions are tenable at this point. For example, there have been (and no doubt still are) those that maintain that environment is the principal shaper of human behaviour, a view that is often referred to as "cultural determinism". A particularly extreme version of this view might maintain that humans are born with minds that are "clean slates" (tabulae rasae) ready to be inscribed with the knowledge and example of the social group into which they are born. Behaviour, including moral behaviour, will

thus be irreducibly different cross-culturally because social groups are themselves so different.

The relatively recent ability to quickly and efficiently pass from one culture to another has led to recorded observations of abundant cultural divergence. This, in turn, has provided a certain amount of evidence supporting such views as cultural determinism. It is no surprise, then, that the cult of cultural determinism flourished particularly during the last century - when travel became particularly easy - carrying a lot of weight throughout the annals of anthropology. Anthropologists such as Margaret Mead contributed much to its perpetuation. Between 1925-26, Mead studied a group of adolescent girls in three different villages in Samoa in order to discover whether Samoan adolescents experience the same type of puberty problems that adolescents in the United States appeared to almost universally experience. What she allegedly discovered, was that in Samoa, this period of time passes by almost unnoticed psychologically. Mead attributed this factor to a number of features of the Samoan culture that she observed, including a certain sexual liberty which she felt explained a lack of sexual frustration that young adults experienced there (Mead, 1961).[52]

Mead's findings were very influential, and were often considered to be a decisive tool in settling the nature/nurture debate in favour of nurture. As her mentor Franz Boas claimed in the foreword of Mead's *Coming of age in Samoa* (1961). "...much of what we ascribe to human nature is no more than a reaction to the restraints put upon us by our civilisation" (Boas, 1961). The authority - and hence influence - of Mead's work was severely undermined, however, when an anthropologist called Derek Freeman contested Mead's findings, revealing that some of them were not only misleading, but also just plain wrong (Freeman, 1983). For example, where Mead claimed that rape was virtually non-existent in Samoa, Freeman found that it in fact constituted the

[52] I have drawn this information from Donald Brown's discussion of Margaret Mead and Derek Freeman in his book *Human Universals* (1991: 14-20).

third most frequently committed crime in a country in which crime levels were comparable with our own (Freeman, 1983).

5:3 The convergence of nature and nurture

Margaret Mead's example is one of the more famous unsuccessful attempts to explain human behaviour uniquely as the product of environment, and has been used to warn about the dangers of affording culture and environment too much power in explaining phenomena such as morality. Again, the appeal of such extreme views can be traced to the popularity of the misleading nature/nurture dichotomy. For while it is a theoretical separation which has been defunct for some time, its legacy lies in the perception of culture and morality as being disconnected from human biology, and, moreover, something which disconnects humans from the rest of the animal world. Donald Brown, for one, argues that there is too much emphasis placed on the role of culture - or environment - as a generator of individual differences, and the role of "nature" as responsible for any similarities that humans manifest (Brown,1991: 147). These are inappropriate conclusions for as I have suggested, and will argue more thoroughly at various points throughout this thesis, many of the different traits that humans manifest – both behavioural and otherwise - can be traced (either directly or indirectly) back to biological adaptations that humans have evolved. For example, in discussing cultural differences I emphasised that they are sometimes the product of "social learning": that we can learn in such a way, however, is due to a number of biological traits that the human lineage has evolved. Conversely, cultures, whilst often manifestly different, also include many common features; almost all cultures spend time devising and undertaking entertainment of one form or another, for example. George Murdock's famous list of cross-cultural universals serves to further emphasise this point.[53]

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[53] This is the impressive list that he compiled to demonstrate the extent of cross-cultural behavioural universality.

> Age-grading, athletic sports, bodily adornment, calendar, cleanliness training, community organization, cooking, cooperative labor, cosmology, courtship, dancing, decorative art, divination, division of labor, dream interpretation, education,, eschatology, ethics, ethno botany, etiquette,

More importantly, however, a "nature *or* nurture" view also overlooks the interdependence of nature and nurture, a problem highlighted in Part One. A major convergence of nature and nurture, for example, centres on their contribution to human survival and perpetuation. While human social behaviour varies cross-culturally, much of it nonetheless contributes either directly or indirectly to our survival prospects. In Part One, for example, I argued that there is a body of quasi-universal moral rules which serve to bolster our survival prospects (and hence our genes' survival prospects) within a group. There are, for instance, universally present rules aimed at fostering altruism, others which control aggression and some that regulate sexuality. Sometimes moral rules even serve to fill gaps that our biological adaptations leave open in terms of enhancing human survival prospects (as I also argued in Part One). In fact, more generally, we spend significant time and effort actually devising means of combating imperfections or deterioration of our biological constitution. For example, in a rich Western country with an over-abundance of unhealthy food, we might try to avoid too many fatty, sugary foods to improve our survival chances, even though we instinctively crave these types of food (Levy, 2004: 106). In places where food is scarce such an idea would most likely seem ludicrous: in fact it has been suggested that such cravings were actually biologically selected in an ancestral climate in which food was scarce (Lachapelle, 2000: 337).

Such claims might, however, invite the conclusion that we can reduce all we do to survival matters.[54] There are several obvious problems with such conclusions,

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> faith healing, family, feasting, fire making, folklore, food taboos, funeral rites, games, gestures, gift giving, government, greetings, hair styles, hospitality, housing, hygiene, incest taboos, inheritance rules, joking, kin-groups, kinship nomenclature, language, law, luck superstitions, magic, marriage, mourning, music, mythology, numerals, obstetrics, penal sanctions, personal names, population policy, postnatal care, pregnancy usages, property rights, propitiation of supernatural beings, puberty customs, religious ritual, residence rules, sexual restrictions, soul concepts, status differentiation, surgery, tool making, trade, visiting, weaning, and weather control (Murdock, 1945).

[54] Or as Spencer and Huxley famously did on the heels of Darwin's *Origin*, claim that moral "good" is what aids evolutionary progress and what is "bad" is that which hinders evolutionary progress, a

however. Firstly, it is simply not true that we all that we do is motivated *solely* by the desire to improve our survival prospects; there are far too many cases of people who have preferred to die rather than live to counter such a sweeping generalisation about behavioural motivation. More pertinently to this thesis topic, many people have actually chosen to forgo their own lives for the sake *of a particular moral stance*, as evidenced by a long history of moral martyrism. While these are rather extreme examples, they do suggest that human motivation to act involves far more than survival considerations. This issue will be taken up more fully in Part Three.

Even if we were to concede that most people are principally motivated by survival considerations this does not entail that it is the unique goal of all our actions and pursuits. For instance, many types of individual activity that we regularly undertake seem completely divorced from any obvious focus on survival or fitness enhancement. Painting, poetry, dance and theatre – many activities that we undertake have nothing at all to do with the projection of our genes into the future. Indeed, some activities we undertake are positively maladaptive - extreme sports and alcohol consumption, for example.

Likewise moral rules are not always directly or even indirectly aimed at fitness enhancement. For example, in Chapter Three I made the point that morality is often intimately linked to the collective beliefs particular cultures have about the world or the beliefs individuals themselves have. These beliefs might arise from metaphysical speculation, for example. They might arise from our beliefs concerning life's "meaning" or "purpose". Often these will stray far from considerations of how we might survive and pass on our genes, but will be focused more on how we might live our lives "meaningfully".[55] In fact it seems fair to suggest that while morality most likely emerged as a tool to encourage cooperation, the point at which it became "morality" as opposed to ordinary rules signifies the point at which humans were able to speculate about the world and develop values based on these speculations. Of

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proposition which would have ghastly implications if followed through. (Spencer, 1893, Huxley and Huxley, 1947).

[55] I will discuss this point more fully with respect to vegetarianism in Part Three.

course, the fact that most these values and the morals representing values are not often *detrimental* to individual survival seems to make sense as well; humans generally do value life. Moreover, a moral principle which is systematically detrimental to its adherents is not likely to either spread or endure because of this (and of course because it would most likely eliminate its proponents).

This leads to the second point; while it is true that moral tenets often can be reduced to common goals and values – and some of these are survival-orientated goals - this does not mean that all goals and values are essentially the same or that they are universally shared. As a brief illustration, if one were to compare the values of a communist system to a capitalist system, one would find an example of not only different moral principles, but differing values underlying these principles. In this case, the value of sharing wealth in a communist system is pitted against the rewarding of talent and hard work.[56] In the chapter to come, I will elaborate not only on how it is that such cross-cultural variation has been able to flourish, but also why it can be considered irreducible variation rather than a variation borne of misguided, erroneous beliefs.

Summary

Human social groups seem not only to require moral rules but also that there be variety in moral rules. This variability is spawned and shaped by differences in both physical and social environment, and is expressed via cultural norms, beliefs and

[56] Another useful example can be found in Herodotus' opening quote in which he describes the horror his Greeks expressed at the idea of eating the bodies of their dead, a practice undertaken by the Callatians. As I pointed out above (footnote 51) while these examples of varying funeral procedures may seem vastly different, the underlying moral values could be considered the same: they could, for example, be reduced to different means of expressing one's respect for one's deceased. On the other hand, however, the act of eating a human body *is* considered a moral taboo of considerable gravity in the Western world, and hence it is reasonable to also conclude that there is, in this case, a good example of genuine moral diversity. In the words of Jared Diamond, with respect to his Guinean experience of reported cannibalism, (which echoes Herodotus' own words), "...because Westerners abhor cannibalism, some of us cannot believe that other societies practise (or still practise) it." (Diamond, 2000: 26). But, as he points out, the lack of moral consensus works both ways: "The horror of my New Guinea friends when I described circumcision, US treatment of the elderly and US funeral customs matched Westerners' horror at cannibalism." (Diamond, 2000: 26).

traditions. As E.O. Wilson points out, the leash joining culture to genes is long, but it is perhaps much longer than he envisaged: it is, moreover, upon this length that we find cultural and moral variety.

The ideas expressed in these chapters form a partial response to the question of moral variety posed at the beginning of this chapter (and captured in "Issue 1"). They also partially explain why some moral rules have little to do with matters which could be considered strictly prosocial (Issue 2). These explanations are partial because they remain strictly observational. For while it seems plausible to suggest that cross-cultural variation in moral codes is the product of human response to differing environment, in order to understand it one needs to know *how* it is that the environment – both social and physical - is *able* to have such an impact in such a way on our behaviour and beliefs (Issue 3). This will be the subject of the next chapter.

Chapter 6: Reconnecting the leash: Biological traits and the making of moral rules.

> ***The human behavioural repertoire is not an aggregation of independent units. Our behaviour is produced by mental mechanisms that play a role in many different behaviours. Some of the mental mechanisms used in hunting are used in storytelling...Such behaviours might be alterable only be altering the underlying mental mechanisms, and since these mechanisms are used for many different purposes, any change in them would have many other consequences. Hence individual behaviours are unlikely to have histories to call their own, or to have independent adaptive significance (Sterelny and Griffiths, 1999: 321).***
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> ***A genetically fixed capacity to acquire only a certain culture, or only a certain role within a culture, or only a certain role within a culture, would, however, be perilous; cultures and roles change too rapidly. ...This plasticity is adaptive because culture is acquired, not transmitted through genes. Human genes insure that a culture can be acquired, they do not ordain which particular culture this will be (Dobzhansky, 1963: 146).***[57]

Introduction

In Part One I suggested that moral rules are generally learned rather than acquired via biological transmission; that is to say, there do not seem to be such things as "gene complexes" that code for certain moral norms. In Part Two, this claim has been supported by observation not only of cross-cultural (and interpersonal) diversity of moral norms, but - more importantly - the relative rapidity with which this diversity has occurred and continues to occur; because such changes can and often do occur within single lifetimes, they cannot be attributed to genetic change, a process which is too slow to account for such rapid diversification (Alvard, 2003: 139). For example, during the last 40 or 50 years in Tasmania, increasing concerns for the environment have led to the development of a whole plethora of new, widely held moral rules aimed specifically at protecting this environment. Many people in Tasmania, for example, consider the destruction of old-growth forests to be a moral issue. Littering is also another good example of a practice that has only recently become morally condemnable in Tasmania.

[57] As quoted in Holmes Rolston's "Genes and the adapted mind" (1999).

This suggests that many moral rules are the product of human decision that they are morally relevant. In Part Three, I will (of course) argue that the story is far from being as straightforward as this. In particular, I will contend that emotional predispositions not only heavily influence these choices and decisions, they also play a central role in producing the moral concepts which differentiate the moral rule from the ordinary rule. However, for the purpose of emphasising the point that morality is nonetheless partially a social construct, this consideration will be delayed for the moment.

It also seems fair to conclude that we acquire substantial portions of our moral principles – along with other norms and traditions - directly from the culture into which we are born. In other words, people are not born *with* their culture; they are born *into* the culture. We are not born, for example, with an inclination to eat food with particular utensils, or to perform particular rites; we are taught these things by other members of our culture. These, in turn, we pass on to others intact, or modified as required by circumstance, accounting for the ratchet like effect referred to in the last chapter. As stated, it is likewise plausible to extend this process to certain of the moral rules we acquire. For example, we are not born knowing that littering is wrong; it is something that we are generally taught.

This process has led some to refer to the development of cultures and their moral rules as being Lamarckian in nature[58]; that is, they are the product of a process whereby we inherit characteristics (in this case traditions skills, practices, beliefs, for example) that have been acquired *in response* to perceived requirements.[59] These characteristics are then passed on from generation to generation, being in turn modified within as required. So while Lamarckianism has long since been discredited when applied biological evolutionary processes, it seems apt for describing the way humans shape aspects of cultural constituents.

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[58] Martin Stuart Fox suggests this, for example. (2002:35-36)

[59] This is a theory of evolution which was put forth by Jean Baptiste de Lamarck in the eighteenth century.

Up to this point, however, these claims have been merely theoretical. What is missing is an explanation of *how* (empirically speaking) it is possible that both cultures and their moral codes have been able to develop. In this chapter I will briefly discuss some of the biological capacities that have contributed to their development. This will be done with reference to comparable capacities – or the lack thereof – in other animals, for both culture and morality seem to be specific to humans only. Observing that other animals (A) do not seem to have moral rules and (B) do not have (or only manifest nascent forms of) the capacities which seem obviously linked to the ability to form, communicate and follow moral rules, strengthens the plausibility of culture and morality being the products of having these capacities.[60]

While some of these capacities almost certainly evolved to facilitate kin relationships, others –such as communication using language - seem to have been selected for their role in enabling social learning. In looking at some of these capacities, then, we go somewhere towards answering the question of "how" morality came to be developed (the question encapsulated by "Issue 3"), as well as contributing to the overall portrait of what morality has become and what role it performs. It will achieve this in the following ways:

- Firstly, I have sketched a picture in which morality emerged in response to a need for "pro-social glue" alongside other aspects of culture. An exploration of the capacities which enable this function to occur will contribute to the plausibility of this explanation. For in showing that these capacities have allowed us to make the rules ourselves, it becomes less likely that they derive from some kind of human-independent source.

[60] I of course note here that it does not prove that this is the case. These capacities could also be conceived as being means by which we are able to access mind-independent moral facts. I will address this point further in Part Four.

- Secondly, in a like manner it will help explain the development of morality from its initial role of "pro-social" glue to rules which seem far removed from this goal. It will also provide evidence that suggests a biologically-based explanation for moral concepts which, I will argue, distinguish moral rules from other social rules. This is because some of the capacities I discuss here are implicated in the generation of this fundamental aspect of morality as well. This explanation will be consolidated in Part Three.

- Thirdly, it will strengthen the case against those who would claim that there is such thing as a "morality adaptation." In this section I will argue that the formation of moral rules relies on a whole range of different capacities (none of which seem to have been selected for their role in generating morality), and cannot be attributed to one alone. Consequently, it seems less likely that morality can be adequately explained as a trait which itself evolved as an adaptation.

- Fourthly, looking at these capacities may also help explain why it is that both culture and morality seem to be specific to humans.

- Finally, it will serve as a reminder of Wilson's leash since these capacities are biological in origin.

Before commencing a brief discussion of these capacities, I must emphasise two things. Firstly, many of the evolutionary stories provided here for each of the targeted capacities are mostly speculative: this is because it is very difficult to know the precise evolutionary function(s) – if indeed there is even one – of every trait we have (as I mentioned in Part One). There are, nonetheless, many highly plausible hypotheses which explain the emergence of the various capacities, and these will be given here. While few of them are completely uncontroversial, I contend that the ones cited here are not merely fanciful "just-so" stories.

Secondly, I will not go into enormous detail about the about the specific adaptive mechanisms responsible for the emergence of the capacities. This is because (A) again, there is little of a precise nature that is known about them and (B) pinpointing the exact mechanisms is not necessary to make the general point that morality emerged as a bi-product of numerous capacities. Establishing this only requires demonstrating the more general point that there appear to be many capacities called upon in moral decision making, rather than one only.

6:1 Capacities required for social learning, culture and morality

> ***...genes are... likely to have contributed to the increased brain size and complexity that support the vast cultural superstructure created by the interaction of our neurons and their environments. They may also contribute to the wonderful flexibility and plasticity of human behavior - the very attributes that make our behavior less rather than more genetically determined. But to understand the development of and variation in specific human behaviors such as creating charities and cheesecakes, we must invoke culture, its evolution, and its potential interaction with biology (Ehrlich & Feldman, 2003: 92).***
>
> ***...Many of the key building blocks of morality are not themselves moral. Language, memory, perception, causal inference, earned adjustment, acquiescence, deliberation, choice, self-control, etc. All are essential to morality without themselves being "dedicated" to moral tasks (Railton, 2000: 59).***

Imitation

The capacity to imitate is a key element in acquiring the cultural traits (moral rules included) particular to a given society - at least initially. A lot of behaviour that small children adopt during their early developmental stages, for instance, is acquired through imitation of the acts of those around them. They learn words by repeating those that their parents or others repeat to them, they learn how to eat by imitating the eating actions of others. Indeed, much of children's early play consists of imitating the adult world that they witness around them. It is also a skill which is important, not only for learning basic survival skills, but also for fostering group cohesion. For instance, the perpetuation of rules and norms that coordinate the behaviour of people in groups rely in part on the capacity to imitate.

The ability to imitate is not limited to human beings; chimpanzees have been prized for their ability to imitate and many a zoo or circus has banked upon this ability to ensure clientele. Somewhat ironically, one of the most frequent abuses of this ability in particular has been to have them imitate features of our own cultures. The chimpanzee tea parties were a noteworthy feature of the earliest zoological displays of chimps.[61] Parrots also have proven themselves very adept at reproducing human sounds.

As the animals which seem particularly adept at imitation are generally social animals, it seems plausible to conclude that it is an adaptation selected for the social learning benefits it bestowed. Amongst other things, as Scott Woodcock points out, imitation avoids the costly process of trial and error learning and as such is a valuable learning tool (Woodcock, 2006: 221). It seems fairly clear, however, that it is social learning that is the function of the adaptation and not the generation of moral rules specifically. For one thing, it is a capacity common to animals – like parrots, for example – which show no evidence of having even rudimentary morality. If the capacity to imitate was selected for a role in the generation of morality, one would expect to find moral codes in other animals that have this ability. It is far more plausible to make the connection between imitation and morality *via* the social learning that imitation facilitates – a skill that enables offspring to integrate into their social group, and, importantly, to learn valuable survival skills. In humans, this integration includes – but does not uniquely constitute - the acquisition of moral rules. So while imitation of actions is centrally implicated in the transmission of moral rules, this function is better explained as a bi-product of the adaptation, and not the function of the adaptation.

[61] In the words of Matt Ridley, "...from the very first arrival of chimpanzees in Europe, there seems to have been an obsession with serving them tea. The great French naturalist, Georges Leclerc, Comte de Buffon, was one of the first 'scientists' to see a captive chimp in about 1790. What did he find worth remarking? That he watched it 'take a cup and saucer and lay them on the table, put in sugar, pour out its tea, leave it to cool without drinking' (Buffon's Natural History, (abridged), 1792, London)...the tradition of the chimpanzee tea party was born." (Matt Ridley, 2003: 11-12)

Learning and teaching

Imitation alone is only a superficial form of learning. It is one thing to reproduce a particular action, but it is quite another to understand what an action is intended to produce; the chimpanzee may well be able to wash dishes in imitation of a human being, but the dishes will not often be clean (Pinker, 2001). Steven Pinker gives an account of such behaviour:

> A friend of mine lived and worked with a chimpanzee for several years, and tells the story of how the chimp loved to imitate things that she did. For example, after she washed the dishes the chimp would wash the dishes, but the chimp's idea of washing the dishes was very different from ours. It went through the same muscle movements; it would pick up the sponge, let the warm water roll over his hands, would rub the sponge on the plate, but didn't get the idea that the point of washing the dishes was to get the dishes clean. It just liked the feel of rubbing a sponge over the plate. It could wash the same dish over and over again, it could rub some of the dirt off and not get all of it off, because what it was imitating was the particular physical sequence. What it didn't think about was what the goal of the human performing the action was. And the ability to guess what other people's goals are a key part of human intelligence, and it makes us very different from our primate cousins (Pinker, 2001).

Without comprehension of intention, certain acts may eventually seem less useful to the perpetrator and therefore not worth reproducing (unless, of course, there is some other kind of reward or punishment involved). Human cultures include a vast number of norms, traditions and customs that require that they not only be imitated faithfully, but that they be imitated *appropriately*; that is, applied in the appropriate circumstances, with a view to attaining a particular end. For example, one might initially learn to brush one's teeth through imitation, but without the concept of why this is important it is unlikely that one will want to continue doing it, as anyone with young children might attest.

Both the application and formation of moral rules, in particular, requires such understanding. As I argued in Chapter 2, it does not seem appropriate to talk of behaviour being altruistic if it was not intended as such. It seems strange to talk about the self-sacrifice of the bee for the hive as the same *type* of altruism displayed by the person who makes the *choice* to sacrifice something of value to themselves for the sake of aiding another; there is an intentionality and understanding in the latter, that there is not in the former. Moreover, the bee will not have to be *taught* that it is appropriate to use its sting to deter potential threats to the hive; it is born with this ability. A human child, on the other hand, will often be taught that it is appropriate to aid members of their community on occasion, even should it involve some form of self-sacrifice. Continuing to subscribe to this moral rule will thus partially hinge upon an understanding of why helping is the right thing to do; otherwise the sacrifice will not make sense. This, of course, does not mean that everything we do is thus acquired – I have emphasised this in Chapter 1. Much that we do as cultural organisms – including the adoption of certain moral rules – does however require that we *learn* about both their application and relevance.

One of the advantages of being able to learn is that it affords us a great deal of behavioural plasticity. This, in turn, enables us to use more of our environment more efficiently and effectively. Instead of requiring a set amount of environmental triggers for behaviour to occur, we can shape our behaviour to suit the environment, thereby increasing our survival chances. Considering that we are an organism that does not reproduce prolifically, and, moreover, gives birth to relatively helpless offspring, being able to manipulate our environment more readily helps ensure the best care for our offspring. It allows us, for example, to skip the potentially costly process of learning "the hard way" via personal experience alone, as pointed out above. Learning how to look after the hygiene of our offspring from someone else will enable us to potentially avoid losing our children to ill health consequent to poor hygiene. Instead of dying from the cold because our biology has not provided us with the fur that enables other species to survive in cold conditions, we use the environment (and change it) to make our own warmth via clothing and various forms

of heating. These skills - developed in our own lifetimes - we then pass on to our offspring during these same lifetimes. Some of the skills will be modified in accordance with new knowledge or new circumstances which arise (the ratchet effect, described in Chapter 4). With time, the accumulation, augmentation and refining of knowledge and skills has contributed to some of the vast differences in lifestyles captured by the term "culture". It also means that we have, to a certain degree, taken our survival into our own hands. In terms of morality in its role as social regulator and facilitator, the ability to learn, and transmit what is learned, is key to ensuring a system which is appropriate to a large scale, constantly changing society.

Certain studies have suggested that other animals demonstrate the ability to learn from others as well as well. There is Kanzi, the bonobo, who became quite adept at sign language, for example (Savage-Rumbaugh, 1986). However, while it is true that in captivity some animals demonstrate the capacity to learn, it is also true that in their own environment learned skills appear much rarer. Behaviour that is acquired, for example, is usually behaviour that would have been acquired whether demonstrated or not (Galef, 1998: 606). In fact, Jane Goodall herself, often apparently so eager to lessen the gap between humans and chimpanzees, maintains that the repertoire of chimp behaviour does not include behaviour that they would not naturally pick up by themselves (Goodall, 1970).[62] In captivity, however, we can more actively coerce and reward certain behaviours more consistently and thereby lead them to perform actions that they would otherwise not perform. This suggests, however, that some primates have dormant abilities which emerge only when teased out by those with the ability to do so. Much in the same way as an adult will attempt to form the latent abilities of a child that might otherwise emerge more slowly (if at all), teaching a bonobo sign language draws out language skills that may not otherwise be employed.

The rarity of behaviour learned through active teaching in the animal kingdom might also be ascribed to the *lack of* active teaching that occurs in the first place. Instances of active, intentional teaching have been very difficult to find in animal groups.

[62] As quoted in Galef (1998: 60).

Christophe Boesch, during his extensive observations of chimpanzee behaviour, only witnessed such forms of teaching twice (Boesch and Tomasello, 1998: 601). The paucity of examples of active teaching marks a significant gap between human behaviour and that of our closest living relatives. It is a biological gap, moreover, which most likely explains why there are not complex moral codes in primate groups – if there is morality at all, which is unlikely.[63]

Such a discussion requires some sort of brief comment about why there might be what appears to be such a significant cognitive gap – after all, chimpanzees and bonobos are our closest living relatives and share roughly 96% of our genes. Albert Naccache (1999: 21) attributes the emergence of learning mechanisms to the advent of neocorticalisation in the mammalian brain, which he maintains (basing his findings on Terence Deacon's work [1997]) took place as the result of an overall trend toward physical growth. Evidence shows, for example, that around 30 million years ago, primates, along with cetaceans and proboscides, appeared to have a higher ratio of brain to body size than other mammals (Deacon, 1997: 342). It is during the Palaeolithic era, however (from roughly 2.5 million to 12 000 years ago) when differences in the behaviour of the genus *Homo* really begin to surface. For example, evidence of co-operative hunting from this time suggests that language and perhaps the development of a theory of mind may have evolved during this time. Evidence of basic tool use during this time is significant also in terms of what it tells us about the evolution of these capacities, as I will presently discuss. During the period between 40 000-60 000 BC, however, more significant changes start to appear in the fossil record; stylized stone tools, basic clothing, boats and even the first glimmerings of symbolic art all date back to this period (Leary and Buttermore, 2003: 385-389). This represents a major leap in cognition, perhaps even the point at which thought processes in humans broke away from equivalent processes in other primates. For Leary and Buttermore, this period signifies the emergence of the 'modern human self', and, more significantly, the cognitive changes that enabled humans to reason, reflect and learn. They refer to this period of time as the 'cultural big bang'; a time

[63] I will address this question specifically in Part Four.

from which a series of biological changes in the *Homo* genus culminated in the phenomena of culture, the evolutionary path of which was to magnify changes in lifestyles in a tiny space of evolutionary time (Leary and Buttermore, 2003: 392).

There are different hypotheses about why these changes took place. One particularly noteworthy suggestion is that many of these changes went hand in hand with increasing group sizes in the Homo genus. Robin Dunbar and Leslie Aiello (Aiello and Dunbar, 1993) have argued that there is a connection between the ratio of social group size to the neocortex in social primates, observing that the bigger the neocortex, the bigger the group size.[64] This suggests, in turn, that there is a correlation between the two. Dunbar and Aiello hypothesise that the neocortex is almost certainly centrally involved in the organisation and processing of information relevant to living in these groups. The steady increase in the size of the neocortex of our ancestors, coupled with the dramatic changes that I have outlined above (epitomized by the "cultural big-bang"), corroborates this point. While there is not the space to go into detail about the exact nature of the neural mechanisms required for learning in general, some of the skills to which they have given rise in our species are worth discussing briefly.

Use of tools

Considering the emergence of tools in the fossil record may seem an odd inclusion in a consideration of cultural and moral behaviour, and yet the capacity to manipulate one's environment using a range of different instruments adapted for differing circumstances represents a significant leap in human cognition. For instance, it signifies the emergence of the ability to consider problems and to devise the means for overcoming them via a process of reasoning. In terms of morality, the cognitive ability required to make such decisions is the same as that which enables us to decide how we might apply a particular moral principle, or whether a particular set of circumstances requires moral consideration. Again, that they were selected for this

[64] I came across this information in Richard Joyce's *The evolution of morality* (2006: 89-90).

purpose is highly unlikely, however; it is far more likely that they were selected for more generalized purposes, such as, for example, the ability to solve problems arising from a challenging and changing environment. This claim is supported, moreover by the observation that other animals also manifest some of these characteristics. Charles Darwin, for example, claimed that other animals are endowed with problem solving skills, including, surprisingly, the apparently not so lowly worm. In fact, one of Darwin's last pieces of work was a study of worms in which he concluded (after extensive observation) that worms were capable of making intelligent decisions when confronted with challenging alterations to their surroundings.[65] What he did not find, however, was that worms show evidence of having either complex social or moral rules.

Nowhere else in the animal kingdom have we yet to encounter the advanced level of problem solving skills that human beings manifest, however. Evidence for this can be found in comparing tool use between our species and others. One significant difference between the tool use of humans and other primates, for example, is that humans use them in a way that indicates both a sense of time and also a sense of one's place in time (Leary and Buttermore, 2003). For example, while chimpanzees do use basic tools (such as sticks to prise out marrow from bones) they do not transport them around with them (Savage-Rumbaugh, 1994). Homo habilis, widely considered to be the earliest of our genus, are thought to have both made and carried tools around with them (Potts, 1984). For certain scientists, this indicates a development in self awareness which includes both the ability to consider future needs, and the ability to recall past events (Leary and Buttermore, 2003: 376).[66] In order to be able to do this, one needs a sense of one's self (self consciousness) in order to be able to envisage or "conjure up" the idea of oneself as a future or past self.

[65] I drew this infomation from James Rachels (1990) in which he specifically discusses Darwin's attribution of reason and intelligence to other animals (133-137). In Darwin's words, " If worms have the power of acquiring some notion, however rude, of the shape of an object and of their burrows, as seems to be the case, they deserve to be called intelligent; for they then act in nearly the same manner as would a man under similar circumstances."(Darwin, 1881: 97 as quoted in Rachels [1990: 136]).
[66] I have used Leary and Buttermore (2003) as a reference for much of this paragraph.

The ability to project oneself into the past and future is central to not only learning, but also to applying what one has learned in the relevant situations to the appropriate ends. Moral decision making, for example, revolves around the ability to imagine the effects of one's choices before one actually performs them. Being able to "see oneself" in the future as the result of having behaved in one way or another may substantially affect the decisions one ultimately makes. Many decisions will also call upon the knowledge gleaned from past experiences. Memory is thus also central to learning and reasoning in general. If I cannot recall what I have just learnt, then I will have to learn it over and over again.[67]

Again, it is highly unlikely that capacities such as those which enable us to retain and recall information were selected for the purposes of making moral decisions. Rather, moral decisions seem to be amongst the vast pool of decisions humans make each day which these capacities facilitate. While I have not been specific about the biological particularities of these abilities, it seems reasonable to suggest that general learning is the adaptive trait for which they were selected. It is, for example, far more fundamental to a child's survival that they be able to learn about a whole range of more generalized dangers than those few which are the subject of moral rules.

Language and language learning

Fully developed language is believed to date back to around 100 000 years ago which, evolutionarily speaking, is not very long ago (Lieberman, 1998). There are varied hypotheses about why complex language skills might have been selected. Again, while these theories are not conclusive, what they have in common is that the conclusion that language is intimately linked with social coordination and cohesion. Grover Krantz, for example, points to the advantages it provides in terms of organizing group life. He argues that language facilitates cooperation by enabling and facilitating the precise communication of ends and needs, the organisation of

[67] Albert Naccache takes this idea a little further. He uses what he refers to as "social memory" - the ability to transmit information from one generation to the next - to explain the rapidity of cultural development and change. This "social memory" comprises the accumulated history of one's culture passed on to future generations via both the spoken and later, the written word. (Naccache, 1999:16)

labour, the transmission of important information and the organisation of cooperative ventures such as hunting and gathering of resources (Kranz, 1980: 776).

Language also greatly facilitates the learning process, and is central to the kind of "social learning" referred to earlier. It permits the transmission of information in a quick, efficient manner, thereby eliminating the time consuming activity of individual learning through personal experience, as discussed above (Castro et al., 2004: 725). It also enables rules, including moral rules, to be easily discussed, codified and transmitted. This becomes particularly relevant in large-scale societies where numbers are so great that rules and regulations become essential in avoiding significant confusion and dispute.

Language has also enabled humans to guide the learning process of their offspring, and indeed other members of the group, via the expression of approval and disapproval of certain behaviours (Castro et al. 2004: 725). This is a capacity that is directly relevant to moral behaviour. As will be discussed in Chapter 7, moral rules are often instilled in young children via not only explanation, but also via systems of reward and punishment. With language, consequences for actions can be communicated quickly and clearly. Some have also suggested that language has its roots in the role it plays in the bonding process between mother and child (Jonas, 1980:782).

These points all highlight the fundamental role that language plays in human social life. Indeed, it seems fair to suggest that without language human social groups could not have become what they are today. In terms of its adaptive significance, however, it seems fairly clear that it predates morality having been selected rather for the cooperation it enabled between humans – and, perhaps, other animals as well: while complex language skills are often taken to be unique to humans, the example of Kanzi, mentioned earlier, challenges this assumption.[68] As pointed out earlier

[68] Kanzi was an infant of 6 months old when his foster mother was used in a series of experiments aimed at determining the potential language capacities of non-human primates. As he was still young, he was present during the experiments conducted with his mother, which consisted largely of attempts

though, what is particularly interesting to note again is that while Kanzi and other primates have shown limited linguistic skills, these have occurred only in captivity and not in the wild, a fact which underlines the differences, rather than similarities between humans and their chimpanzee cousins. As Pinker points out, the main ability this highlights is the imitative capacities of the chimpanzee and the bullying capacities of the human being.

> What an irony it is, that the supposed attempt to bring *Homo sapiens* down a few notches in the natural order has taken the form of us humans hectoring another species into emulating our instinctive form of communication, or some artificial form we have invented, as if that were the measure of biological worth. The chimpanzee's resistance is no shame on them; a human would surely do no better if trained to hoot and shriek like a chimp, a symmetrical project that makes about as much scientific sense.(Pinker, 1994: 352) [69]

The question of the uniqueness of these capacities is not really central to the topic at hand, however. These kinds of experiments do serve, amongst other things of course, as an often well needed reminder of our animal status. It should not be surprising that other primates exhibit behaviour that is similar to our own; we share a highly significant proportion of our genes, after all. What is of particular interest here is that we use the capacity to tremendous advantage, where as other primates, if indeed they do have the same potential, do not use it.[70] Considering why this is the case can

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to gauge her ability to understand symbolic representation using a keyboard expressing such symbols. While the experimenters were unable to teach his mother any such representations, Kanzi had, during his time of proximity with the experimenters, learnt much of what they had unsuccessfully tried to teach the older bonobo; without having been explicitly taught, moreover. It was found that not only was Kanzi apparently able to understand the concept of an abstract symbol being used to represent a word, or an idea, he was also able to understand spoken words as well. It was found, for example, that out of 660 statements made in which he was requested to perform various actions, he performed 74% of them accurately. This was a success rate higher by 9% than a child of 2 ½ years old. (See Savage-Rumbaugh [1986]).

[69] As quoted in Lloyd (2004: 578.)

[70] In fact, even Noam Chomsky was suspicious of the results drawn from experiments with Kanzi, as while they do indeed suggest that the mechanisms for speech are in place, the fact that they are not used effectively remains mysterious. As he claims "...if an animal had a capacity as biologically sophisticated as language but somehow hadn't used it until now, it would be an evolutionary miracle, like finding an island of humans who could be taught to fly".(1991:20, as quoted in Lloyd, 2004: 585) For Chomsky, the capacity to use language is a uniquely human capacity. While Kanzi's example suggests otherwise, it also suggests, amongst other things, that something might be lacking in other

contribute importantly to an understanding of the evolutionary history of the capacities that we have. One might conclude from the above data, or example, that both humans and bonobos share an ancestor who had certain linguistic capacities in place that manifested themselves differently in both lineages.

Self Consciousness and the symbolic self

Finally, the capacity for language has been importantly linked to the development of self consciousness. As mentioned earlier, while this is not the place to explain all of the mechanics of human intellect, a few things can be mentioned by way of explanation of self consciousness. Leary and Buttermore argue, for instance, that being able to use complex language indicates the existence of the ability to represent things –including ourselves - symbolically in our minds. They further suggest that this latter ability may have even emerged as a consequence of the evolution of the former (Leary and Buttermore, 2003: 381).

In terms of their relevance to morality, self – and indeed other – consciousness can firstly be positioned as central to moral deliberation, as well as to the formation of moral rules based on this deliberation. For example, if one is unable to conceive of oneself as a person whose actions have consequences, then one cannot be said to be able to form the type of morally relevant intentions, as I discussed in Chapter 2. Here I argued that being able to form intentions required that one be able to consider possibilities and the outcomes of these possibilities. This requires that one be able to conceive of oneself as a subject of these possibilities in the first place. I will discuss this again in Chapter 9.

Of even greater significance, however, is the suggestion that the ability to represent things symbolically in our minds is pivotal to the development of reason and reflection. In the words of Leary and Buttermore:

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primates that does not allow a fruitful exploitation of this ability. (This information was taken from Elizabeth Lloyd's paper "Kanzi, evolution, and language"[2004])

> Because they can manipulate thoughts and images about themselves in their minds, human beings are able to anticipate outcomes of their actions, consider their options, prepare in advance for events that might occur, and develop plans and contingencies. They may experience emotions in response to remembering events from their pasts or imagining themselves in the future. The ability to think consciously about oneself also underlies introspection, self-evaluation, and the development of the self-concept. People are able to form ideas and images of what they are like, consciously compare themselves to their own standards and to other peoples, and experience emotions such as pride and shame as a result. Self-awareness also offers the possibility of deliberately controlling one's behaviour and, when necessary, acting contrary to one's automatic inclinations (Leary and Buttermore, 2003: 393)

It does not require much discussion to realise the significance of the emergence of the "symbolic self" and the ability to reason and reflect. In Chapter 9 I will focus extensively on the role that our ability to reason and reflect plays in morality, for example. I will argue, amongst other things, that it is central not only in the formation and application of other rules, but also in generating moral motivation. But as with other capacities discussed in this chapter, it is fair to suggest that our ability to reason and reflect emerged as one of a long list of other advantageous bi-products that are consequential to increasing social complexity, rather than the development of morality. Moral rules, while important tools in the regulation of groups of people, are less important than the general learning that these mechanisms enable.

6.2 Animals and culture

This has been somewhat of a gloss (considering the enormity of the literature) over some of the capacities that have contributed to the emergence of culture and morality. It is nonetheless sufficient to demonstrate the connection between these capacities and the advent of both culture and morality. I maintain, however, that the mechanisms which are responsible for producing these capacities were not selected for their contribution to either of these phenomena, but rather because their

contribution to social learning and coordination. At this point, the question may well be asked, as Henrich and McElreath have recently asked, why it is only *Homo sapiens* who developed the capacities that enabled the development, accumulation and dissemination of cultural constituents? (Henrich and McElreath, 2003: 126).

One response is that *Homo sapiens* are in fact *not* the only animals which have cultures. Some of the capacities central to the development of culture are present in other animals, albeit at times in rudimentary form. For example, while instances of active teaching are rare, they are still existent. Not only primates, but dolphins too have been observed not only to use tools (sponges), but to also pass on this skill to other dolphins (Krutzen et al., 2005).

Moreover, not only do some non-human animals exhibit the capacities I have argued are central to the development of culture, but some of their social groups appear to manifest certain cultural elements. In chimpanzee societies, for example, there is evidence of hierarchical rules, punishments and cooperative ventures. Some of these, as Boesch and Tomasello point out, also differ from group to group.

> ...to a degree unknown in any other species of nonhuman animal, primate or otherwise, different populations of chimpanzees seem to have their own unique behavioural repertoires, including such things as food preferences, tool use, gestural signals and other behaviours and these group differences often persist across generations(Boesch &Tomasello, 1998: 591).

While this might be the case, the word "culture" as I have defined it serves to group *considerable* instances of difference between groups. Other species simply do not seem to manifest the remarkable range of behavioural differences that charactise human culture. In short, to call just anything that looks like intra-species behavioural difference cultural is to demonstrate a clear lack of understanding of the term, as Laland and Hoppitt succinctly point out:

> To confuse such matters as oyster catchers' learning one of two ways to open mussels by calling this cultural is the

> equivalent of saying that reptiles are in the class of birds because feathers are but elaborated scales and wings but the modified bone structure of reptilian forelimbs (Laland and Hoppitt, 1981: 709).

More importantly, however, culture not only represents differences between groups, it also represents the sources of these differences. Highlighted in particular was the development of beliefs arising from speculation about existential and metaphysical matters which shape the behaviour of the groups to which they belong. The fact that the generation of these belief s requires certain capacities which do not appear to have equivalents in the rest of the animal kingdom (such as, for example, the ability to use complex language) may explain why this is the case.

On the other hand, that other animals, particularly primates, exhibit what could be considered the *rudiments* of cultural behaviour should not be all that surprising, as mentioned earlier. What is clear, however, is that human cultures appear to be vastly different from those that are claimed for other animals, and that these differences are importantly linked to the emergence of capacities that enabled social complexification and expansion. A precise answer to Henrich and McElreath's question "why" is nonetheless, elusive. This is not a problem, however: for whether or not animals can be said to have cultures is not the topic of this thesis. Discussion of the possibility here has been useful rather in highlighting important constituents of the term "culture" and the capacities which contribute its formation. As such, what does appear plausible is that (A) many of the changes that occurred during the cultural "big-bang" were advantageous to human beings, aiding them to proliferate and prosper and that (B) our species alone manifests many of these capacities in a more advanced form than other animals, a fact which explains the vast chasm that exists between our mode of existence and those of our closest genetic relatives, for example. These conclusions in turn enable us to suggest, then, that morality and culture are the products of a series of biological adaptations that evolved in the Homo genus.

6:3 Morality and adaptation: a recapitulation

In this chapter I have argued that the adaptations responsible for the capacities I have briefly discussed were selected because of the advantages they provided in terms of enabling social learning and cooperation. This is in keeping with my argument that group living itself is fitness enhancing for humans. As such the adaptations which have facilitated this way of life have also contributed substantially to the evolutionary success of our species. Acceptance of these arguments renders the suggestion that morality is an adaptation implausible, for while the capacities briefly discussed here do play fundamental roles in generating aspects of morality (whether it be in forming the rules, communicating the rules or obeying the rules), it seems highly unlikely that they were selected for this *specific* purpose. As Christopher Boehm suggests, at the most, some of these adaptations could be considered "preadaptations" for morality (Boehm, 2000: 94). Equally important, is the observation that there is not one of these capacities in particular which seems ultimately responsible for or central to the generation of moral rules: this also severely undermines the hypothesis that morality is an adaptation. An adaptation is a heritable trait, as I pointed out in Chapter 2. Morality, however, is a composite phenomenon which calls upon a whole series of *different* adaptations, as I have argued here with reference to moral rules alone. Consequently, it seems more plausible to consider morality as a fitness enhancing bi-product or "epiphenomenon" of a number of different adaptations, rather than an adaptation itself.

This, however, is not the end of the story as far as attempts to explain morality as an adaptation is concerned. For in this part of the thesis I have been more concerned with explaining and exploring the ways in which humans have been able to *create* moral rules themselves. In doing so, I have not significantly distinguished them from any other rule that we create. As I consider morality to be largely concerned with "rules" (in particular, the rules that regulate social cooperation and coordination) this discussion has made an important contribution to my consideration of a connection between morality and biology. In Part Three, however, I will focus on how moral

rules can be differentiated from other rules, a discussion which in turn will introduce a different approach to considering morality as an adaptation. In particular I will consider Richard Joyce's (rather tempting) argument that what he terms the "moral sense" (A) can explain this difference and (B) is itself most probably an adaptation. While much of what Richard Joyce has to say about morality accords importantly with arguments of my own, where we differ is with respect to this contention. Amongst other things, I will argue that while Joyce's suggestion is an intriguing option, it is not only implausible, but also unnecessary.

Summary

Exploring various human capacities in this section has helped explain how humans have developed both cultures as well as aspects of the moral rules within them. For example, I have contended that we are able to manage our lives by reflecting upon the best ways of using resources to produce the most optimal outcome. We are also able to communicate these reflections to others, who in turn may choose to adopt, ignore or ameliorate them. That we are also able to change and adapt so readily to differing circumstances is central to the development of intercultural behavioural differences. More importantly, however, it has significantly contributed to the evolutionary success of human beings. While I have suggested that the mechanisms involved in these capacities were not specifically selected because of their relevance to morality, they are nonetheless central to tour ability to form and apply moral rules. The ability to make moral rules, then, is best conceived as being the bi- products of these capacities.

General Conclusion: Part Two

In this part of the thesis, I outlined some of the major problems arising from the representation of morality as being uniquely concerned with bolstering social cooperation. They were as follows:

- **Issue 1.** Firstly, a purely prosocial account of morality is not adequately representative of morality because it does not explain why there is so much cross cultural variety in moral rules throughout human groups, when the goals – according to a prosocial account - are ostensibly the same; i.e., to facilitate cooperation in groups.

- **Issue 2.** Secondly, it also does not account for moral rules that seem to have little, if anything, to do with socially cohesive behaviour.

- **Issue 3.** Thirdly, it does not explain *how* it is that we come to form moral rules. If we are not genetically programmed to behave thus, how is it that we learn or decide what is appropriate moral behaviour?

- **Issue 4.** Fourthly, it does not adequately explain how we become motivated to behave in accordance with these moral rules.

- **Issue 5.** Finally, and most importantly, it does not adequately explain how we come to believe in the moral concepts of "right" and "wrong" (as described in the introduction of this thesis) which are the key features of morality that separate it from other human rules.

In answer to Issue 1, I explored the relationships between culture and morality. I suggested that culture - comprising traditions, beliefs, skills, and (of course) morality - dramatically shapes aspects of its members' behaviour. The cultures themselves are

in part the fruit of differing environments and are shaped by the needs and requirements that these environments impose. The human ability to not only adapt their lives to these environments, but to also change or improve on these adaptations has contributed to both the dynamism of culture and the behavioural gulf that has arisen *between* social groups. This gulf partially accounts for the variety of moral rules that can be found across the globe. I have claimed that this is because moral rules and beliefs are shaped by cultural needs and beliefs. As these needs and beliefs vary cross culturally, the moral rules will most likely vary as well. For example, the moral rules which express our beliefs about delicate issues such as the death penalty and abortion are often derived from cultural beliefs regarding life and death and vary accordingly. Moreover, as collective and individual beliefs change, so too will some of the moral rules; the death penalty was, until recently, a form of punishment in Australia, but it has since been abolished in part because it was considered immoral. In providing an explanation of this process, I have provided a partial response to Issue 2.

I did not, however, deny that there is also universality with respect to a number of cross-cultural moral rules. As human beings share a common suite of basic survival needs (which they do by virtue of all being organisms with a similar physiology), cross cultural moral codes will also have a kernel of similarity in the rules devised to ensure these common needs are met. Survival requirements, however, are not the only requirements with which morality is concerned.

So much for Issues 1 and 2. The final sections of Part Two dealt primarily with Issue 3; how it is that humans have been able to develop cultures in the first place. Here I argued that the development of cultures and – particularly - the social learning integral to the development of cultures - was largely due to the evolution of a number of capacities in the human line. These are capacities which have enabled us to not only adapt to our environment, but also to adapt our environment to ourselves, and this without waiting for millennia of genetic changes we might otherwise need to effect such changes. Principal amongst these capacities is the ability to rationally

reflect about one's circumstances, and to formulate ideas about how to respond appropriately to them. Coupled with the advent of complex language skills, the human cognitive centre subsequently became central to the existence of culture and the moral codes within these cultures.

An important product of this discussion was the conclusion that the adaptations responsible for these capacities were almost certainly not selected for their contribution to morality. While it is true that the exact adaptive function of each capacity – or, more precisely, the adaptive function of the *biological adaptations* that produce the capacity – remain hypothetical, it is highly plausible that many of them were selected for their contribution to social learning, coordination and kin bonding.

Another major conclusion that I have drawn is that the ability to form, transmit and act upon moral rules calls upon *many* of these different capacities, rather than one in particular. If this conclusion is accepted, then I further suggest that it is implausible to suggest that morality itself is an adaptation, and that it is better conceived as a bi-product of a number of other adaptations.

These explanations account for certain aspects of morality insufficiently dealt with in Part One, and captured in Issues 1-3 outlined in the introduction. We are still, however, far from an account of the whole of what morality represents. For while it seems reasonable to suggest that morality emerged as a type of social rule which varies and changes in response to differing social and physical environments, it is nonetheless something which is often and readily *differentiated* from a social rule by most people. What is missing, then, is an explanation of how it is that we have come to care about certain situations, actions, thoughts, people, and organisms enough to make categorical moral judgements about how we ought to respond to them: for it is, I will argue, partially because *we are* able to care deeply about certain issues that we have come to form moral concepts. A tenable explanation of the origins and nature of morality has to account for these concepts, and – most importantly -how we come to be motivated by them in the first place. I will now discuss these matters.

Part Three: Moral Motivation

...it may be that as a matter of fact morality is just a matter of human convention; the point is that this is not how we think of it (when we are "within it," so to speak); we think of it as having a convention-transcendent practical clout. How exactly this clout is ultimately to be cashed out is a philosophical problem stretching back to Plato, and no doubt beyond (Joyce, 2006: 63).

General Introduction

Thus far I have suggested that morality emerged partially from the need for social regulation. This was one of the principal conclusions of Part One. In Part Two, I outlined five problematic issues that emerge from an explanation for morality given *uniquely* in terms of social utility. Part Two accordingly addressed one of these issues in particular; the issue of explaining cross-cultural variability of moral rules. This discussion entailed an excursion into some of the capacities that are required to make, teach and follow moral rules, thereby revealing the biological basis of some of the machinery that are central to the generation of these rules. As such, it also addressed another of the major issues (Issue 3) headlining Part Two.

In Part Two, I also provided a partial response to the question of why we have moral rules that seem to have little to do with promoting socially cohesive behaviour (Issue Two). This, I argued, could be (again, partially) attributed to the way we use moral rules to also protect and promote beliefs and values which arise from reflection about the world, its origins and its meaning. These beliefs and values, while often not totally at odds with encouraging human cooperation, nevertheless have strayed into domains which are not obviously (if at all) connected to these ends. That we feel that they are of utmost importance - and that we believe that others should consider them as such - has led us to express them as moral rules or principles. This response, however, remains "partial" because I have as yet to explain why these matters entail *moral* rules in particular.

The principal issues which remained at the end of Parts One and Two, however, were related to how motivation to behave morally might be explained. In this part of the thesis I will argue that we are often motivated to uphold moral principles because we see them as *categorically binding*. As such, then, I will need to explain how we come to believe that certain rules (that we call "moral rules") are categorically binding (these are the matters captured by Issues 4 and 5 in Part Two). In particular an explanation must be provided of how we might account for these two issues if (A) one assumes that there is no such thing as objective mind-independent moral facts which entail that moral rules are categorically binding, (B) there does not seem to be anything obviously "in it" for us (after all, moral rules sometimes proscribe what otherwise might seem tempting) (C) we are not biologically programmed to *specifically* believe that these moral rules are categorically binding and yet (D) one nonetheless seeks to explain morality as the product of human biological evolution. Part Three, then, will be concerned with these issues.

To begin the discussion, I will consider the role that social punishment and reward might play in addressing Issues 4 and 5. I will argue that moral rules that are upheld or "obeyed" in response to the coercive tools of social punishment and reward are not generally considered to be *morally* motivated. This, I contend, is because morality involves much more than the mere performance of a series of actions; it is also concerned with *reasons* for action. But not just any reasons; these reasons for action involve the concepts of moral "right" and "wrong". Behaving morally simply to avoid punishment or reap reward is instrumental – in this case self serving – motivation; we are doing it not because we think it is morally right or wrong, but because we want to avoid punishment, or reap reward.

It will also be noted, however, that while behaviour performed in response to punishment and reward is generally not considered to be motivated in a truly moral way, the fact that such coercive methods are often used to enforce rules may nonetheless explain how we might *come to consider* the moral rules we are taught to be categorically binding. For example, constant negative or positive reinforcement of

a principle from childhood may lead us to eventually believe that a particular act *is* morally right or wrong.

The most important aspect of this discussion, however, will be the (re)emergence of the moral "ought", a concept which I will argue is at the heart of the difference between a social rule and a moral rule. The moral ought expresses the conviction that some beliefs, traits and/or action are intrinsically right or wrong and that as such we "ought" to believe, possess or perform them, not for any instrumental reason, but because they are *categorically* binding. In the introduction of this thesis I suggested that this justification itself is commonly (although, of course, not always) based on an assumed moral realism, which for many people transposes conviction to a type of "knowledge". In this case, the knowledge is of a series of objective moral facts which express the truth about how we ought to think, act or simply "be". Because I am maintaining that there are no such things as moral facts which justify moral realism of this type, the onus of explaining the origins of *belief* in them, and the motivational power that they engender, is shifted to me. More generally, though, the onus is on me to explain why we consider moral principles to be categorically binding, whether or not we do so with reference to existence of moral facts.

Firstly, I will explain the fact that people accept moral rules as categorically binding with reference to a history of our being actually *told* that they are categorically binding. When this is combined with the observation that much of the content of our own culture's morality seems uncontroversial – indeed, is quite obviously useful to us – then this augments our belief that what we have been told is correct. We are then motivated to uphold the moral principles, because we believe they are *right.*

While this point contributes to an explanation for moral motivation, however, it is rather limited in what it can tell us about morality itself. What we need is an explanation which accounts for the strength of the moral rules, a strength which in turn accounts for the fact that people are willing to accept them even though they often proscribe things which we otherwise might like to do. More than this, however,

it will help to explain why many people do not merely accept the moral rules with which they have been raised as being yet another type of instrumental rule, but rather come to consider them as inviolable injunctions ostensibly tied to some kind of objective truth about the world.

In response, one might be tempted, like Richard Joyce, to suggest that we have something like a "moral sense" - an adaptation which predisposes us to make *moral* judgements - which can account for all of this (Joyce 2006: 107-142). Joyce is not alone in projecting such a possibility; talk of an adaptive moral sense is not uncommon in sociobiological literature. It has been mooted, for example, by Michael Ruse (Ruse, 1986: 253)), E.O. Wilson (Ruse & Wilson, 1989: 51) and Jonathon Haidt (Haidt, 2001: 827).[71] Joyce hypothesises that the "moral sense" is a naturally selected trait. That this is the case, however, seems unlikely and this part of the thesis will illustrate why this is so. In particular, I will argue that our tendency to make moral judgements that we consider to be categorically binding derives rather from a varied range of environmental (notably social environment) factors and biological capacities. Many of the biological capacities involved in moral decision making, moreover, are more plausibly explained as capacities evolved for other "non-moral" adaptive features that they have. Consequently, pinpointing one particular adaptation that constitutes the "moral sense" and can adequately explain both the existence of morality and how it is commonly perceived would be very difficult. Furthermore, since these aspects of morality can be adequately explained without reference to a moral sense, I argue that we don't even need to try to find such an adaptation in the first place.

For example, in Chapter 8, I will examine the human capacity for experiencing emotions. I will argue that the mechanisms involved in generating these emotions (which I also argue were selected for functions other than their contribution to morality) later became instrumental in cultivating our desire to think and care for

[71] Darwin himself posited the existence of a moral sense, claiming moreover that "...of all the differences between man and the lower animals, the moral sense or conscience is by far the most important" (Darwin 1871: 70).

others. More importantly to the issue of moral motivation, they can contribute to the belief that certain actions, beliefs and attitudes are categorically morally right or wrong by leading us to *experience* them as being right or wrong, a process I will explain in more detail in Chapter 8. In underlining the central role of emotions in generating moral concepts I concur with Humean arguments and, more recently, with the arguments of Neil Levy (2004).[72]

I will also discuss the contribution of reason to moral motivation. Here I will conclude that our ability to think and reason about our lives provides the impetus in many cases to choose certain courses of action based on a *reasoned* conclusion that they are irreducibly right or wrong. This may occur irrespective - or even in spite - of our emotional attachments. More often, however, the capacities appear to work in tandem, whether or not we are aware of this.

As I will have completed my elaboration of the different capacities which contribute to both the formulation of moral rules and our subscription to these rules at the end of this part, I will provide a response Richard Joyce's suggestion that morality itself is an adaptation in a final section.

In this part of the thesis, then, I will show how it is possible that morality was able to develop from rules created and enforced to ensure effective co-operation amongst individuals in a group, to the complex, multifarious moral systems that characterise human social groups and their individual constituents today. In doing so, I will achieve the following central goals:

- ❖ I will complete my explanation for how we come to differentiate the social rule from the moral rule.

- ❖ I will provide an explanation for how it is that we might develop the conviction that morality has something to do with categorically binding moral

[72] This view is also famously attributed to Edward Westermarck (1912) and Adam Smith (1759).

facts, and how these convictions motivate us to embrace certain moral principles.

- I will show why morality is best conceived as the product of a number of biological adaptations, rather than the product of one "special" adaptation.

- I will expose the ultimately instrumental role of morality in both ensuring social cohesion as well as satisfying our emotional and rational convictions that something ought to or ought not to be the case.

- I will support my contention that morality has no existence independently of us.

- Finally, and importantly, I will have completed my presentation of a plausible link between human biology and morality.

Chapter 7: From reward and punishment to the moral "ought"

> ***We do not call anything wrong unless we mean to imply that a person ought to be punished in some way or other for doing it – if not by law, by the opinion of his fellow creatures; if not by opinion, by the reproaches of his own conscience. This seems the real turning point of the distinction between morality and simple expedience (Mill, 1979 [1863]: 47).*** [73]

Introduction

This chapter will clarify what it might mean to say that something has been "morally motivated". It will begin with a discussion of adherence to moral rules in response to threats of punishment and promises of reward. I will argue that while such adherence is indeed motivated, it is not *morally* motivated. Reintroduced here will be the contention (briefly discussed in Chapter) that behaviour only becomes morally motivated when this motivation is inspired by the belief that some courses of action are intrinsically right or wrong and that actions are performed on this basis. I will nonetheless maintain that punishment and reward are importantly involved in the generation of moral motivation in that they might lead us to eventually believe in the moral significance of certain attitudes, beliefs and actions.

In this chapter I will also make a distinction between what I will call "public" and "personal" morality based on the observation that the moral code of our social group may not cohere with what we come to adopt as our own personal moral code. I attribute this mainly to the fact that sometimes we reject the beliefs upon which our society's moral code might be based once we are able to reflect and choose for ourselves. This distinction, while somewhat imperfect, will nonetheless open up the way to roughly establishing the point at which morality actually *becomes* morality rather than a series of socially useful rules. The point itself can be partially traced to the time when humans evolved a series of traits which allowed them not only to

[73] As quoted in D'arms (2000: 297).

experience an array of complex emotions, but to also understand that others experience these emotions as well. This will be the topic of Chapter 8.

7:1 Reward and punishment

> ***Morality is based heavily on social pressure, punishment, and other kinds of direct social manipulation by which the hostilely aroused majority use their power over individuals in a band (Boehm, 2000: 82).***

In Part One I concluded that biological predispositions to perform (or desist from performing) certain acts are not sufficient *by themselves* to explain why we have particular moral rules. In Part Two, I offered an explanation for how it is that humans have come to able to create, follow and build upon rules governing large scale social interactions using, amongst other things, their ability to communicate, reflect, and learn. Some of these rules, I maintained, are moral rules. So while morality is still connected to capacities which are biological in origin – since the abilities to communicate, reflect and learn are the product of biological adaptations – it is connected indirectly. I also suggested that some moral rules are the product of employing these capacities in accordance with the requirements and influence of a particular environment (notably, the social environment).

While such considerations are complementary to an emerging explanation of how humans have come to reflect about moral issues, make moral judgements and behave in accordance with them, the explanation itself is incomplete. Firstly, morality is not uniquely concerned with cooperation between human beings. This was one of the main points I made in Part Two. Nevertheless, seeing as many of our moral rules do revolve around encouraging cooperation and helping behaviour, it is a reasonable point of focus in a discussion of morality. Indeed, it is fair to say that this subset of moral rules can be found cross-culturally in one form or another.[74]

[74] Moreover, if one accepts the plausibility of the account I have thus far provided for the development of morality, it seems likely that morality as we identify it today was principally concerned with facilitating cooperation *at its origin.*

With the acknowledgement of these points, what now seems obviously lacking is a plausible account of what it is that actually *motivates* us to curb a propensity to, for example, behave in a self-centred way and to cooperate with and/ or provide aid to others.

My first point is based on the observation that our adherence to many of the rules that govern our interactions within social groupings is motivated by some kind of system of reward or punishment, whether formalized or tacit. In our home, school and work environments this is especially true. For example, a common process of socializing a child is to use both tangible and intangible forms of reward and punishment.[75] The question now concerns the extent to which - if any - moral behaviour is motivated by reward and punishment. A preliminary point to make is that seeing as certain moral principles are formally legislated, adherence to them will be *enforced* via threat of punishment for non-compliance. For example, in some places abortion is illegal, so regardless of whether or not one *believes* that abortion is immoral or not, the threat of punishment for breaking this law will be a deterrent for some. The law likewise punishes thieves, murderers, rapists and child abusers, amongst other moral offenders. While it's true that this does not always deter potential offenders, it seems clear that without such laws the incidences of these crimes would be much higher.

Much that is considered to be morally good behaviour, on the other hand, is socially rewarded. Acts of altruism and bravery are often publicly celebrated or acknowledged for example. It is not unreasonable then to imagine that some people are motivated to subscribe to certain moral tenets by the reward they may receive for doing so.[76] This reward might even be something as superficial as the cementing of

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[75] Interestingly, other animals also allegedly punish each other for non-compliance. Dugatkin cites Hauser's observation that Rhesus monkeys will punish those who do not alert others on finding food sources (Hauser [1992], in Dugatkin [2002: 472]). Punishment for sexual misconduct amongst chimpanzees appears frequently in the findings of ethologists as well (Okamoto and Matsumara [2001], in Bekoff [2004: 501]).

[76] This is an important source of motivation since there are many advantages to being considered a worthy member of a given society, and - more particularly - many disadvantages to being considered someone of dubious character. (People will less likely, for example, to trust any of their affairs to somebody who has proved themselves untrustworthy in the past). Considering the interdependence of

their reputation as being morally commendable people. While I am not of course suggesting that people are often motivated in such a blatantly self-orientated way, I contend that reward and punishment can nevertheless be feasibly implicated in an account of how we might become motivated to uphold moral principles. The question, however, is whether such motivation can be considered the *appropriate* (i.e. moral) motivation; I will address this question in the next section. Before doing so, however, I will briefly discuss the role of guilt as a form of self-punishment.

So far I have concentrated on the way that others might punish us for our moral transgressions (or reward us for our compliance), but not on the way we might punish or reward ourselves. Forms of self-punishment, such as those that issue from feelings of guilt and shame, for example, should be mentioned here since it seems clear that that at times we might become motivated to uphold moral rules in response to a past feeling of guilt at having transgressed them, or in anticipation of experiencing guilt if we continue to. While I will argue in Chapter 8 that these emotions are not necessarily connected to moral matters (and, moreover, were not selected for the role they might play in moral matters) the experience of them seems to nonetheless contribute significantly to both our motivation to adhere to moral rules and, importantly, our belief that some moral rules are categorically binding (as I will also argue more thoroughly in Chapter 8).

Up to this point in the thesis, then, I have suggested that morality arose out of more general social rules that govern the behaviour of people within groups. For while the groups themselves afford survival advantages to humans, they are also the breeding ground for strife and conflict due – amongst other things – to the difficulty of sharing limited resources; hence the need for rules and regulations. That we are able to create these rules is because we evolved traits which enable us to reason, recall and communicate. These also gave rise to other characteristics grouped by the word

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people in social groups – particularly in some of the extensive communities of today - the need to "toe the line" and establish one's positive reputation becomes particularly important as it is difficult to survive alone, as established in Part One . I will discuss this point more in Chapter 9 with respect to the question of moral identity.

"culture" and include not only rules, but also certain beliefs, rituals and traditions which vary from social group to social group. This, in turn, explains why moral rules vary throughout the world. These "moral rules" are then sanctioned in part by systems of tangible and non tangible punishment or reward. End of story.

7:2 The "right type" of motivation

Human morality is defined by intention, not by behaviour **(Kagan, 2000: 47).**

But this is, of course, far from the end of the story. While the account given so far provides the framework for morality and perhaps explains the existence of *social* rules, we are still far from providing an adequate explanation for the transition from these rules to moral rules.

To begin with, while it is true that moral rules are at times obeyed in order to avoid punishment or reap reward, this evidently cannot be posited as the only source of motivation. Indeed, moral rules are often obeyed at great personal cost to individuals, including incurrence of punishment itself. History is riddled with moral martyrs who have maintained and defended moral positions literally to the death, as mentioned in Part Two.[77] Today we are in the midst of some of the most painful reminders of the extent some will go to in order to uphold and enforce their own moral positions; the recent spate of suicide bombings in particular testifies to the strength of belief in certain moral rules, rather than to a desire to avoid punishment or receive reward. [78]

This leads to the central problem of explaining moral motivation in terms of punishment and reward; being thus motivated detracts from the purported moral nature of the act itself. Outwardly, an act so inspired may appear to be morally sound, but if it is motivated only by the hope of receiving a reward or avoiding

[77] People such as Gandhi, Martin Luther King and even Jesus Christ could, in some respects, be considered "moral martyrs" who died because of their beliefs.

[78] One might argue of course that in some of the cases of religious martyrdom the promise of reward lays in the social status it receives or the promise of reward in heaven. It is fairly clear, however, that they are almost certainly also moved to act by belief in the "moral rightness" of their actions.

punishment then it is not usually considered to be *morally* motivated but is rather selfishly motivated: that is we are behaving so as to gain something for oneself, or to avoid personal loss. Moral motivation, as I argued in Chapter 2, requires that one's intention is to do the right thing *because* one considers it to be the right thing to do. For example, let's imagine a 14 year old boy has helped a physically disabled old lady across the road. It is possible that in doing so he was motivated by any of a number of different reasons. He may have been told to do it by his mother, with the threat of no dessert in the case of non-compliance. The old lady may have paid him $20 to help her. He may have been motivated by an overall vision of the moral importance of helping others. He may have been brainwashed by visiting aliens resulting in him being compelled to always help old ladies across the road. He may have been merely using the opportunity to steal her purse while helping her across the road. All of these scenarios are possible. We could find out which one is the correct scenario by asking the child in question, who would then presumably explain his reasoning in any of these ways, or perhaps others. Because the adolescent boy has the capacities not only to reflect, reason, and communicate (and assuming he is a trustworthy lad) we are thus able to discover the particular intention which motivated the action.[79] When we then try to decide whether he has been morally altruistic or not we would usually consider his intentions as our gauge. For while the act of helping a less able person across the road may seem on the surface to be a morally praiseworthy act, if you were to find out that it was done with the intention of robbing the less able person, the act would typically be considered to be morally wrong. If you found out that the boy was moved to help the woman out of a feeling of benevolence towards her, you would perhaps marvel at his moral halo. If you were told that the child had been brainwashed, you would not call the act morally relevant at all, since there is no longer any conscious intention involved.

A consideration of intention and motivation rather than a consideration of the action performed itself, then, is crucial to our decision as to whether it is a moral or immoral

[79] Except, perhaps, if he had been brainwashed, in which case he may not really know why he is so compelled.

action. The presence of intention itself requires that we have some kind of conscious choice as to how to act and choice implies that we have options from which to choose. In the case of altruism, an act that is motivated by the desire to provide a benefit to someone else, rather than oneself, is usually considered morally altruistic. If, however, there has been no conscious choice made between alternative options, we would be reluctant to call it moral at all. There is a vast moral difference between performing a function because one has no other choice and performing a function because one is motivated to do so. It is in this chasm that one finds the difference between moral altruism and evolutionary altruism, as I also argued in Chapter 2 in regards to the altruistic actions of the eusocial insects.

As we will see further on, however, this issue is not as clear cut as it seems here either. For sometimes our actions are guided by biological predispositions or social conditioning of which we are often unaware. In the chapters to come, for example, I will argue that moral motivation can be largely explained in terms of emotional responses to situations which lead us to act not because the rightness or wrongness is intrinsic to the act, but rather because the nature of the emotional reaction leads us to *believe* that it is right or wrong. Consequently, while we might believe that we are acting in accordance with a set of intentions (to uphold a moral rule, for example), we are in fact responding to biological or social conditioning. For the moment, however, this is not a concern; the difference between the ant and the human is that the human can actually have moral and non-moral intentions in the first place and *appears* capable of being motivated by either. In sum, the human has what we could reasonably consider to be a *conscious* choice. In this, I am in agreement with Francisco Ayala. In his own words:

> Whether or not there is free will has been much discussed by philosophers...I will only advance two considerations based on our commonsense experience. One is our profound personal conviction that the possibility of choosing between alternatives is genuine rather than only apparent. The second consideration is that when we confront a given situation that requires action ...we are able mentally to explore alternative courses of action (Ayala, 1998: 520).

Regardless of whether this "freedom" is ultimately illusory, it is the *belief* and the ability to act upon the belief which is pertinent here. The illusion itself is relevant in terms of deciding upon the metaethical status of morality which I will discuss in Chapter 10.

7:3 The moral right and wrong

> ***What is the connection between the natural fact that an action is a piece of deliberate cruelty - say causing pain just for fun – and the moral fact that it is wrong? (Mackie, 1977: 41).***

I have suggested that while the threat of punishment or the promise of reward might be a source of motivation for behaving in accordance with moral rules, behaviour so inspired is not considered to be morally motivated since it has not been inspired by *moral* reasons. Rather, one is acting for consciously selfish reasons; the desire to avoid unpleasant consequences, or the desire to experience some kind of reward. This is the type of motivation relevant rather to adherence to more general rules. Richard Joyce concurs;

> I would be astounded to hear of a culture whose members' practices revealed that they generally conceive of transgressions as wrong because they are punished rather than punishable because they are wrong (Joyce, 2006: 59).

The appropriate intention central to considering something as being morally motivated is rather the intention to do something because it is morally *good* or *right.* In this section I will reiterate what it means to say that something is morally "good" or "right". In the introduction to this thesis I suggested that when we describe an action as being morally right or wrong, we generally mean that it is *intrinsically* right or wrong and that as such it is categorically binding. It is this sense that there are some principles which are categorically binding that provides the power or authority of morality, a feature of morality that Richard Joyce calls "clout" or "oomph" (Joyce, 2006: 62, 170). But what does it mean to say that something is *"intrinsically"* right or wrong? As this concept is central to the arguments provided in this section, I will recall my earlier explanations here.

When we say that something is intrinsically right (or wrong) we generally wish to claim (as Kant expressed with his categorical imperative) that no further reason for its performance (or resistance) be sought; it just *is* the right or wrong thing to do. For example, for most of the things I do I can offer an explanation in terms of the reasons why I chose to do these things: I chopped my hair off because it was getting in my eyes and interfering with my sight; I went to the shop because I needed some milk for my cereal. I chose to do these things because they were *instrumental* in bringing about something else that I wanted; in other words, they were means to ends.

In the case of moral principles, however, the reasons given for why we should uphold them usually ultimately end with the explanation that certain moral principles simply are *right*. For example, one might explain that the reason that one should not steal from another is because it is unfair to the victim of the theft. The idea of something being fair or just, however, is in turn explicable in terms of its being morally "right"; beyond that, no further explanation is deemed necessary. It just *is* right and as such it is binding for everybody. I have further suggested that it is commonly held that the truth of these judgements of right and wrong derives from a set of mind-independent moral facts.

7:4 Why we believe that we morally "ought to": the beginnings of an explanation

> ***A satisfactory moral philosophy will not leave concern with morality as a simple special preference, like a fetish or a special taste, which some people just happen to have. It must make it understandable why moral reasons are ones that people can take seriously, and why they strike those who are moved by them as reasons of special stringency and inescapability (Scanlon, 2003: 127).***

In Part One I suggested that part of the explanation for how certain instrumental social rules transformed into categorical moral rules could be given with reference to the power and authority that moral rules wield. I proposed that morality has its origins in attempts to imbue certain rules with authority both deliberately but -

perhaps more often - as an expression of the belief that certain rules simply *are of utmost importance*. What I did not explain, however, is how it is that we come to *believe* that some attitudes, characteristics and behaviour are of utmost importance in the first place.

Firstly (and leastly), it is plausible to suggest that part of a belief in moral concepts such as categorically "right" and "wrong" can be attributed to having been taught from childhood that certain moral tenets are categorically binding; as such, we inherit these beliefs along with the other aspects of the culture into which we are born. This was one of the main points to arise from Part Two. These beliefs are relatively easy to instil when we are young for two reasons. Firstly, we have little reason *not* to believe that those who have taught us are right since they are generally people whose opinion we trust and respect - our parents or our teachers, for example. Secondly, and more pertinently, these people are those that guide and teach us when we are not in a position to reason and judge properly for ourselves. Consequently, we often grow up believing what we have been told to be true, sometimes unquestioningly. Some of the beliefs that we form as children, in turn, are often very hard to shake off as we get older since we have accepted them for so long.

According to this argument, then, a belief in the categorical nature of moral judgements can be partially attributed to the fact that we might be told that they are categorically binding by those that help form some our primary beliefs as children – and not just "told", moreover: the process often involves a fairly consistent "drumming in" of certain information. According to Martin Hoffman, for example, children under the age of ten experience some form of instruction as to how to behave "correctly" every six to nine minutes (Hoffman, 2000). Later, what we are taught might be bolstered by the observation that many of the moral rules to which people subscribe (and which we have been taught) are maintained because they *do* actually play a useful role in society. For as discussed in Part One, much that is considered morally correct (almost universally, moreover) are actions which specifically target the well being of others in one way or another, and, of course, ourselves as part of the

cooperative, cohesive societies morality helps to create. We don't, for example, want to be physically harmed, stolen from or cheated. Witnessing the evidence that rules *against* these practices are so important might help to cement our pre-formed belief that such acts are in fact irreducibly wrong. Furthermore, the moral rules which guide our behaviour often have long histories because the deeper issues which affect human cooperation and general well-being do not vary substantially and hence the moral rules which regulate them are also not likely to vary. The longer the rule has remained in place, the more solid it seems as a contender for being something that might have absolute rather than relative value.

In sum, then, it is reasonable to suggest that people are often motivated to uphold certain moral rules simply because they have come to believe - through having been told, or having witnessed themselves the "goodness" or "badness" of the rules - that they are categorically binding; that is, that there are thoughts, attitudes, characteristics and behaviours which just *are* good or bad and as such ought to be encouraged or avoided respectively. Once moral rules are accepted as categorically binding, people perhaps do not require much more argument to become motivated to behave in accordance with them. Briefly, Joyce's moral clout arises simply from the fact that the morals have been prescribed *full stop.*

While this explanation most certainly accounts for a portion of our belief in the moral right and wrong, it nonetheless seems too facile as an explanation for the entirety of moral motivation. Firstly, there are too many exceptions to this as a general rule. Many people for instance make moral judgments which have little to do with what the local morality dictates. For example, one might live in a society in which the majority of people believe that it is morally acceptable to eat meat - indeed where one has grown up being actively *encouraged* to eat meat - and yet still judge that it is wrong to do so. This suggests that we do not always embrace certain moral rules because we have simply come to accept the local moral code, but rather because we have independently come to the conclusion that they *are* the right moral rules to embrace.

This leads to a new question: how is it that we come to develop tour *own* personal moral rules, particularly those which are at odds with the moral norms of our social group (that is, presuming that we do). For it is the development of these personal moral rules which suggests that there is much more to morality than a series of socially useful rules that have gained moral status either through religious or social imposition. It appears rather that they relate to something about us which *makes* us amenable to differentiating a social from a moral rule in the first place. The "something", I shall argue in the chapter to come, can be partially sourced in both our capacity for experiencing emotions and our capacity to rationalise these emotional experiences.

7:5 "Public" and "personal" morality

> ***The beliefs and customs we were brought up with may exercise great influence on us, but once we start to reflect upon them we can decide whether to act in accordance with them, or to go against them. (Singer, 1993:6)***

Before exploring moral motivation any further, it may help at this point to make a division between two different types of moral code that seem relevant to our lives: public morality and personal morality. While these are imperfect, and – as will be seen - occasionally misleading appellations, they will nonetheless serve here to make a useful, explanatory distinction.

According to this distinction I wish to make, public morality refers to the moral codes of our culture - or social group - and represents what these particular collectives (and/or their governing bodies) consider in the majority to be morally right or wrong behaviour. I have argued so far that these rules will be largely concerned with promoting and enforcing "prosocial behaviour" in the group, in ways outlined in Part One. They might also represent the collective religious or existential beliefs a culture might have. Some of these rules, I have suggested, may have emerged from social rules whose importance was underlined by endowing them – either deliberately, or

not – with the status of being categorical, rather than hypothetical imperatives (again, borrowing this useful terminology from Kant).

Alongside these moral codes, however, there are more personal moral codes. These are the moral tenets we might adopt individually based on personal decisions about whether certain acts, principles and/or attitudes are morally right or wrong. Some of these – indeed perhaps most of them, depending on political circumstances - will most likely accord with "public morality". Others may not, although we may uphold the tenets prescribed by public morality to avoid punishment or to reap the reward of being seen to uphold them: this, however, would imply that they are simply social rules to us. In Australia, for example, the consumption of illicit drugs is publicly considered a moral taboo, and yet statistics show that there is a large percentage of individuals who use illicit drugs privately. The Australian Institute of Health and Welfare in Australia, for example, released statistics in 2007 based on a survey conducted in 2004 in which it was revealed that "...38% of Australians aged 14 years and over had used an illicit drug in their lifetime and 15% in the last 12 months." (Australian Institute of Health and Welfare in Australia, 2007: 92). This suggests that for many people the moral rule is merely a social rule that people uphold publicly in order to avoid punishment."

The common element of both moral systems, then, is the notion of certain actions, beliefs or attitudes being considered (by somebody) to be irreducibly right or wrong and hence things that we morally ought or ought not to do. The difference is that in personal moral codes the door is often left more widely open to considerations which are not always pro-socially orientated and, also, that they may include moral principles adopted not solely on the basis of their having been imposed. In an important sense, then, the acceptance of public morality is dependent on personal morality.

A word of caution here regarding this distinction, however; the term "personal morality" is being used here as a means of differentiating the prevailing morality of a

particular culture from the morality to which one might subscribe individually. For as mentioned, the two may and do often differ. It is not, however, being used to suggest that we might perceive this personal morality as binding upon ourselves only. Regardless of whether we are the only people to subscribe to a particular moral belief, when we do so it is usually with the conviction that it is not only right or wrong for us, but that it is also right or wrong for *everybody*. This is the prescriptive nature of morality that was identified in the introduction to this thesis as being one of the key elements of morality. It is also, as shall be seen, one of the more complex features of morality to explain, as Bertrand Russell contended:

> The wish [that everybody desire what I consider good in itself], as an occurrence, is personal but what it desires is universal. It is, I think, this curious interlocking of the particular and the universal which has caused so much confusion in ethics (Russell (1999 [1935]): 141).

We have two different aspects of morality, then, which require further attention. To begin with there is the question of explaining our belief in moral concepts, such as the moral right and wrong. Secondly, we need to complete the explanation of how it is that rules that serve mainly to ensure group cohesion developed into the multifaceted, complex system that morality is today – a system, in particular, which often seems to escape E.O.Wilson's famous biological leash. For even if it is true that a large amount of what people count as being morally relevant does indeed involve assuring the welfare of themselves and other humans (thereby enhancing our survival prospects), this is not exclusively the case. In Part Two I offered part of an explanation for this (in terms of moral principles expressing the collective metaphysical beliefs of a culture); however the shift was not made from cultural beliefs to individual beliefs. In order to explore these two aspects of morality, vegetarianism as a moral stance will now be briefly considered.

7:6 Vegetarianism: the dogma which escaped the leash?

Vegetarianism is often the expression of a moral stance against the killing or harming of other animals for food, accessories or clothing. One of vegetarianism's most well-known advocates is Peter Singer whose own vegetarianism is an extension of his Utilitarianism, a position which maintains that the goal of moral behaviour should be to maximise utility or pleasure and to minimise suffering. Singer's extension of moral considerations to other animals derives from recognition of sentience in other animals – that is, the capacity of an organism to feel pleasure or pain. According to Singer, any animal that is sentient has an interest to not suffer. Furthermore, killing an animal, even if done in a painless way, is against an animal's interest to live and experience the pleasures that life has to offer; it is thus immoral, in the same way that we consider the needless killing or harming of humans to be immoral.[80]

What is particularly interesting when considering vegetarianism in the light of a biologically based account of morality is that while it makes evolutionary sense to want to avoid pain and suffering for oneself, one's family or even members of one's social group (if one is to take a group selective view) protecting members of an entirely different species does not seem to make evolutionary sense at all. As such it does not conform to an explanation of morality which focuses uniquely on its contribution to one's survival, since the moral concern is not even for human beings in the first place. In fact, what is particularly interesting about this moral position is that in depriving themselves of animal products, vegetarians sometimes put their own health at risk. This is because assuring the necessary intake of protein and essential vitamins and minerals can become more difficult when meat and other animal products - a rich source of these - are eliminated from the diet.

Secondly, not only does it make little sense in terms of personal fitness enhancement, it is also difficult to explain vegetarianism in terms of its social importance or its contribution to social cohesion. In fact it often leads to social stigmatization rather

[80] See Tom Regan and Peter Singer's (1989) *Animal Rights and human obligations.*

than social facilitation. In the Western world, vegetarians, if anything, are more often met with disapproval rather than approval for their non-conformist dietary choices. Why, then, might some humans seek to avoid causing pain to not only humans but to other animals, particularly when the cost to themselves is not insignificant? Because, amongst other things, they think that it is the morally correct thing to do. Beyond this, no further explanation is deemed necessary.[81]

One of the things that vegetarianism (such as it has been described here) illustrates is that explaining each and every individual moral rule in terms of its direct contribution to the survival or fitness of oneself, one's kin or even one's social group is simply not possible. What it suggest, however, is that there are things that we deeply care about as individuals. In Part Two some of the capacities that contribute to the formation of cultures and their traditions, beliefs, and moral rules were described. What was not explored were the possible origins of human sentiments and the feelings of care and concern for others (including members of other species) to which they give rise. In the chapter to come, I will argue in concurrence with David Hume (and with others since) that it is the capacity for human emotion which accounts for this important aspect of morality (Hume, 1739-40). I will conclude that emotions play a central - though not necessary - role not only in motivating us to uphold moral principles, but also in generating the moral rules themselves. I will also suggest that the human affective system is largely responsible for producing the belief that these moral rules are categorically binding.

Summary

In this chapter the idea of moral motivation has been explored. To begin with, punishment and reward systems were examined to see if they have a role to play as moral motivators. I concluded that while such systems may contribute to the belief people might later have that certain types of behaviour (for example) is morally right

[81] Other examples of moral rules that have no obvious social or biological significance might include moral stances against the destruction of the environment on the grounds of its aesthetic beauty. Moral stances for or against homosexuality are also not obviously linked to matters of social cohesion

and wrong (via conditioning they may have received as children, for example), behaviour that is performed merely to escape punishment or receive reward is not considered on its own to be *morally* motivated. This is because such behaviour is consciously devoid of the intention to do something morally right or to be morally good, but is rather performed with the specific intention of achieving some kind of good (or avoiding some kind of bad) for oneself.

In the next sections, the concept of the "moral ought" was broached. Here I contended that it involves the notion of something being prescribed (or proscribed) on account of it being irreducibly right (or wrong) or good (or bad). Judgements that some actions (states, attitudes etc.) are morally right or wrong, moreover, were defined as expressing our belief that these judgements do not need any further justification. This, I maintained, is what differentiates moral rules from other rules which are more overtly concerned with achieving instrumental ends.

This discussion then gave way to a consideration of what it is that gives rise to our belief that some things are irreducibly (or, to use the other term I have employed, "categorically") right and wrong, if there are no such things as moral facts. Here I argued that people sometimes come to believe that some things are categorically right or wrong because they are taught this as children by people who they trust and who also believe that they are categorically right or wrong. While I argued that this source can perhaps account for a portion of what we accept as morally right or wrong, I concluded that it is not adequate by itself to explain the entirety of our moral beliefs.

The idea that there might be such a thing as "public" and "private" morality was then explored. This was to further emphasise the deviation morality seems to have taken from the goal of ensuring cooperation amongst people. Vegetarianism was examined with an end to providing an example of the type of gap that can open up between the two systems. I concluded that there had to be something else at the heart of moral motivation which drives people to perform actions that sometimes are not only in opposition to the beliefs of their peers, but are also potentially risky to themselves. I

suggested the answer might be found in our emotional capacity. I will now explore this avenue.

Chapter 8: Emotions as motivators.

'Tis a common observation, that the mind has a great propensity to spread itself on external objects (Hume, 1740/1978).

Introduction

In Part Two, some of the capacities which enable humans to learn, teach and even formulate moral rules were discussed. These included capacities such as the ability to reason, communicate and innovate. In this chapter, the capacities which I maintain are central to – if not at the heart of - *belief* that these rules are morally relevant will be explored. These are the emotions.

In the first part of this chapter I will present some of these emotions. Chief amongst these emotions (in terms of the role it plays in generating moral concepts) is empathy, and accordingly empathy will be discussed in the greatest detail. In sum, what I aim to establish is that belief in - and also the motivational force of - the moral right and wrong arises partly from the positive or negative emotional experiences that our encounters with others engender. For example, our capacity for empathy leads us to become concerned about the welfare of others. Consequently, our belief that we are categorically bound to avoid causing unnecessary harm to innocent people, for example, may be bolstered by our experience of distress at the very thought of such harm being caused. Or, alternatively, our empathetic distress might lead us to actually *form* the rule that it is morally wrong to cause unnecessary harm to innocent people.

Not all moral beliefs, of course, are so empathetically orientated and this too is reflected in moral rules. I will suggest, for example, that the feeling that something is categorically right or wrong may stem from violent emotional reactions such as disgust, and our attempts to rationalise these reactions (Haidt, 2001). Some vegetarians, for example, may have come to morally object to eating meat because they were initially disgusted by the idea of eating meat, rather than because they were

concerned for the welfare of the animal (Fessler et al. 2003). Likewise certain moral objections to homosexuality between consenting adults might perhaps be explained as an expression of disgust that arises from the thought of the act itself.

The development of this argument will be followed by a brief discussion of the neurological basis of the ability to feel emotions, with the aim of confirming that it the product of evolved adaptations. This will be fleshed out with discussion of why certain emotions might have evolved and some hypotheses about the trajectory from their selection to their implication in morality. While this may seem to be a somewhat major digression, its purpose is in fact central not only to the establishment of a causal connection between morality and human biology, but also to a determination of where this might then place morality in terms of a metaethical framework. For if I can plausibly illustrate that the belief in moral "right" and "wrong" is bi-product of a series of evolutionary adaptations (which were neither selected because they enable us to perceive moral facts, or, indeed, for nothing directly to do with moral concepts at all) rather than the "intuition" or "understanding" of objective moral facts, then, I argue, we no longer need to posit the existence of these facts in the first place (In this I agree with similar arguments put forth by Mackie (1977), Ruse (1986,1995) and Joyce.(2006).) The appearance of morality, according to this suggestion, seems (evolutionarily speaking) accidental – although "usefully" accidental in that it has been commandeered in part for the purpose of "keeping people nice".

If my arguments succeed, and it can be plausibly concluded that (A) the human affective system is centrally implicated in our belief that moral rules are categorically binding and (B) these emotions are the product of mechanisms that were not selected for their role in generating moral concepts, beliefs or perceiving moral truths then it becomes clear that (C) morality cannot, in any sense, be considered an adaptation itself, contrary to what Richard Joyce has suggested. Rather, it is a bi-product of a number of other adaptations.

Finally, I should also emphasise that although I will focus on emotions here, I am not discounting the role that human rationality has to play in generating moral rules that we consider to be categorically binding. In the next chapter, I will consider and accept the argument that motivation to uphold certain moral rules can plausibly arise from rationally based decisions about what is morally right or wrong, drawing, for example, on arguments made by Peter Singer (1981). Demonstrating that our ability to reason is also a source of belief in the "moral ought" will further support my argument that morality is a bi-product of biological adaptation, rather than an adaptation itself.

Before commencing my arguments it should be noted - as I have in each section where biological adaptations are discussed - that much of the argument that follows is based on premises which are as yet hypothetical. Much of the discussion of the human affective system, for example, is not 100% conclusive because the science itself is still very much in its infancy. That is not to say that the hypotheses are weak, however; there is good evidence for them and this section devotes time to presenting this evidence in order to bolster the main arguments of this part of the thesis. The result is an account of the origin and nature of morality which accords very well with what is taken here to be fact of our being evolved organisms.

8:1 Empathy

> ***Social animals achieve the goals of survival and reproduction in the context of relationships. Thus forming and maintaining strong social bonds throughout the life-span is critical to attaining these fundamental goals. The primary function of empathy is to help individuals form and maintain lasting social bonds (Anderson & Keltner, 2002: 21).***
>
> ***...abstract moral principles, learned in "cool" didactic contexts (lectures, sermons), lack motive force. Empathy's contribution to moral principles is to transform them into prosocial hot cognitions – cognitive representations charged with empathic affect, thus giving them motive force (Hoffman, 2000: 239).***

Empathy is a word which comes from the German word "einfühlung" (Titchener, 1909; Wispé, 1991:78) meaning "feeling into" (Wispé, 1986). Nancy Eisenberg

defines empathy as "...an affective response that stems from the apprehension or comprehension of another's emotional state or condition, and which is similar to what the other person is feeling or would be expected to feel"(Eisenberg, 2002: 34). Empathy as such goes beyond just being able to identify others' feelings; it refers also to the ability to share these feelings with them. Indeed, what is of particular relevance to the forthcoming discussion is the ability to not only *feel* the emotion that one is empathising with, but to feel it *at the same time* that we are experiencing empathy for somebody as a form of "emotional contagion".[82]

Tangney, Stuewig and Mashek identify the following reasons as to why empathy is relevant to the "moral affective system" (Tangney, Stuewig and Mashek, 2007: 363).[83] Firstly, an empathetic response to somebody else's pain or difficulty often sparks off a feeling of concern for the person in distress. This experience, in turn, will most likely lead to the empathetic agent attempting to help alleviate the problems the other may be experiencing, thereby acting in what most would consider an altruistic manner, and as such, a morally praiseworthy manner (Batson 1991, Feshbach 1987). Jeanette Kennett supplements the connection in suggesting that the empathetic experience might lead to a form of suffering - or "emotional contagion" – that might also provide the impetus to act in a way that stops the suffering (Kennett, 2002: 345). The moral vegetarian, for example, might not only infer how other animals are feeling in their suffering, he or she might also *experience* suffering at the thought of their suffering. This will most likely increase motivation to stop the suffering, and perhaps (as I will argue) to the subsequent claim that that such suffering is morally wrong. In sum, these empathetic experiences may serve to prevent a person from behaving aggressively or in harmful way towards others on the basis of awareness of the negative results such behaviour will have for the other person (Feshbach & Feshbach, 1969; Miller and Eisenberg, 1988). More importantly, it may lead people to truly believe that such activities are fundamentally

[82] Franz de Waal and Stephanie Preston claim that emotional contagion is "...the first stage of empathic responding in humans" (2002: 7) and discuss some interesting evidence of its manifestation in the behaviour of other animals as well.
[83] They draw these reasons from the work of Eisenberg et al. (2004, 2006).

wrong, a belief, I have suggested, is expressed using various moral concepts such "right" and "wrong", "good" and "bad". I will argue this point more fully in the sections to come.

Empathy, then, appears to contribute importantly to the motivational force that moral principles such as "be kind to others" have for many people. Before such claims are investigated more fully, however, a better understanding of empathy would be helpful, as it is somewhat more complex than it might initially seem. According to ND Feshbach, for example, the ability to empathise requires that an agent have possession of the following three abilities (Feshbach ND, 1975 in Tangney et al. 2007: 362):

1. The ability to see things from the point of view of another.
2. The ability to identify the particular emotional experience of another.
3. The ability to actually experience emotions oneself.

It would be useful to investigate these aspects a little more in a bid to gain a better understanding not only of the role empathy has to play in generating belief that moral principles are categorically binding but also via what means it is able to accomplish this role. This will strengthen my claim that morality is not the product of a single adaptation.

To begin with, the ability to conceive of how another might be feeling or what they might be feeling (points 1 and 2 above) is to have what is referred to as a "theory of mind". In the case of suffering, for example, to have a "theory of mind" is to be able to appreciate that not only do we suffer ourselves but that others suffer as well. This capacity – consequently - is central to guiding our behaviour towards each other in a morally relevant way. For instance, one needs to have an idea of how an action is likely to affect another person in order to decide, in the first place, how we morally ought to treat them. It is also central to considerations of moral agency. For if someone is not considered capable of understanding that a particular action will have

certain consequences for another, then it becomes more difficult to hold them morally responsible for these consequences. Indeed, much time is spent in courts trying to establish whether certain criminal offenders are even eligible for prosecution; mental illness, substance abuse and age are often considered mitigating factors in judging offenders on the basis that they may impair people's ability to adequately predict or understand the consequences of their actions.[84]

The third element identified as constitutive of empathy above was the ability to experience emotions. This appears to be a rather odd inclusion, since the ability to feel emotions seems to be such an integral part of what it is to be human that it doesn't even really warrant mention. As shall be seen, however, conditions such as psychopathy are partially explained with reference to damaged parts of the brain identified as being responsible for the generation of certain emotions. The people affected are consequently unable to experience or express certain emotions. The effects this seems to have on their moral agency are considerable, as will be discussed more fully in the following section.

So far, I have focused principally on empathy, since it is what I consider to be one of the core emotions relevant to the generation of moral principles: there are, however, many others. They include - on the more negative side - shame, contempt, embarrassment and guilt; and on the positive side, compassion, sympathy, pride and gratitude (and, of course, empathy). Jonathon Haidt further divides these emotions into four different subgroups. While this list is not exhaustive, it gives a sense of the range of emotions covered by the term "moral emotions" (Haidt, 2003b).[85]

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[84] This will be discussed again in Chapter 9.

[85] The term "moral emotion" is a phrase commonly used to refer to emotions which are implicated in moral matters. I will avoid this expression since it seems to beg the question. Jonathon Haidt, who has written extensively about emotions, for example, defines *moral* emotions those which specifically give rise to, or result from, a consideration of "... the interests or welfare either of society as a whole or at least of persons other than the judge or agent"(Haidt, 2003a: 275). As this does not specifically capture all of the aspects of morality I am trying to link to these emotions, and, importantly, because these emotions are not always linked to morality, I will henceforth avoid using the term or will rather use the term "morally relevant emotions".

1. Emotions concerning others: e.g., contempt, rage, displeasure.
2. Self-conscious emotions: e.g., shame, embarrassment, guilt.
3. Emotions related to the suffering of others: e.g., empathy, sympathy.
4. Emotions related to praising others: e.g., gratitude, fear, elevation.

This is quite an extensive list, although it is not, as I suggested above, exhaustive. Other emotions also seem morally relevant, such as emotions associated with the pleasure or joy of others. I will not spend time discussing all of these emotions, as for the moment it is enough to mention that they are often implicated in morally relevant matters for me to give a sense of the range of different emotions associated with morality. Indeed, I have already mentioned the role guilt and shame might play in giving rise to self-punishment for perceived moral transgression (Chapter 7). I will pass, then, to a more thorough examination of deeper connections between emotional response and morality.

8:2 The motivational power of emotions

> ***Shame, guilt, embarrassment, and pride are members of a family of "self-conscious emotions" that are evoked by self-reflection and self-evaluation. This self-evaluation may be implicit or explicit, consciously experienced or transpiring beneath the radar or our awareness. But importantly, the self is the object of these self-conscious emotions. As the self reflects upon the self, moral self-conscious emotions provide immediate punishment (or reinforcement) of behaviour. In effect, shame, guilt, embarrassment and pride function as an emotional moral barometer, providing immediate and salient feedback on our social and moral acceptability (Tangney et al., 2007: 347).***
>
> ***If being nice feels good then that is good reason for being nice. It is also a good reason for a pattern of behaviour to evolve and remain in an animal's arsenal (Becoff, 2004: 499).***

It is now time to put some of the pieces of the jigsaw puzzle together to get an overall picture of the connection between the ability to experience emotions and the motivational force of morality. At the start of this chapter I suggested some of the ways the experience of empathy might contribute to the belief that morality is something more than just a conventional rule. These suggestions will now be more

fully explored in this section. I will, in particular, augment my argument that a significant part of moral motivation derives from emotional responses that our experiences with others evoke. This argument will also lead to the proposal that the concepts of moral rightness and wrongness themselves may stem directly from the experience - whether it be positive or negative - of these emotions.

Throughout this thesis, a consistent issue hanging over some of the discussions I have provided has been the need to explain the difference between what could be called a "conventional" or "social" rule and a specifically moral rule; morals are, after all, a type of rule, but a rule "with a difference". I have maintained that a partial explanation of this difference could be made in terms of the justification given for upholding one or the other. Moral rules, for example, are often justified ultimately by their being somehow linked to an intrinsic "right" or "wrong", terms which are commonly derived from the belief that there are objective moral facts.

In this section, I will suggest that our belief that there is such thing as an intrinsic right or wrong derives from the experience of certain emotions. By way of illustration, when I see somebody in trouble, I might *know* that the morally correct thing to do would be to help them. Witnessing their struggle may also, however, inspire feelings of empathy in me, thereby causing me a certain amount of psychological pain. Not only might this motivate me to act (in part, to subconsciously relieve my own discomfort), it may also contribute to my coming to *understand* that behaving altruistically is the intrinsically right thing to do (in a way which I will describe shortly). Alternatively, one may be led to help the person in trouble based on the knowledge that suffering is something undesirable and that it is hence something that others most likely want to avoid as well.[86]

[86] Jerome Kagan (1984), in particular, is one of the more well-known proponents of this argument. For Kagan, it is the emotional reaction to what would otherwise be an ordinary social rule, which turns it into a moral rule. Another well known basis of support for this idea comes from Jesse Prinz (2006) and Jonathan Haidt, whose views will be discussed in explicitly in Chapter 9.

This last point introduces another way in which our emotions contribute to our moral motivation. In Chapter Two I discussed kin altruism, and made reference to biological capacities that facilitate the forming of attachments to our kin, suggesting that empathy and sympathy might be amongst them. I argued for the plausibility of Michael Ruse's suggestion that such mechanisms while most likely selected for their role in facilitating kin bonding, have since enabled bonding between certain non-kin as well. While it is true that a mechanism which would lead us to form deep attachments to anyone would be maladaptive, it is nonetheless plausible to suggest that something more specific (like the emotions of sympathy and empathy), when combined with the ability to actually *consider* the circumstances in which the suffering is taking place, would permit a certain amount of discrimination. So while they kin bonding mechanisms may lead us to care about non-kin, we may not – and indeed do not – form attachment to just *anyone.*

This point contributes, then, to the picture I am trying to sketch. Returning to the above example we might conclude that our act of helping may also be motivated by our ability to actually *care about the welfare of others* in a more general way, an ability which is also the product of experiencing emotions and being able to form relationships based upon them.

These suggestions give rise to a further question: is it the moral rule that comes first or the emotion? Using guilt as an example, does the fact that one might feel guilt consequent to seeing the pain one has caused another in treating them unfairly *lead* to the decision it is wrong, or rather does one feel guilty *because* one has transgressed a socially imposed norm of treating people fairly?[87] The answer to this question will most likely depend on the situation at hand. It may, for example, lie partially in the division made earlier between personal and public morality. For instance, much of the "public morality" we "inherit" as children is often reinforced by a process whereby others actually induce certain emotions in us. For example, in Tasmania women are generally taught that it is not morally acceptable to expose one's breasts

[87] In other words, a variation of Plato's Euryphro's famous dilemma.

in public, except perhaps when breast-feeding a baby. This moral rule is generally reinforced by various means throughout adolescence in particular. To instil the idea, we might explain to a child that walking around naked is "not the done thing." This, in turn, might be reinforced by invoking shame and embarrassment in the child should they behave immodestly, even accidentally; for instance, the child might be ridiculed, or scolded, arousing more often or not the required emotional response in her. This emotional experience may be acutely psychologically uncomfortable for her, and as such may serve to instil the belief –by association - that her behaviour is wrong.[88]

Sometimes, however, public moral rules may be at odds with one's personal moral rules – such as in the case of vegetarianism (in a country where it is not widely practiced) that I discussed earlier. In this case, it is plausible to argue that it is sometimes the emotion which precedes the making of the moral rule. For even if killing animals for food is not morally proscribed by the local morality, feelings of empathy for the suffering of others may for some extend to other animals, both providing an affective motivation to alleviate it, and, importantly, instilling a more general belief that it is wrong to make them suffer unnecessarily. The belief that it is wrong may lead to the creation of rules as a means of both expressing this belief, but also as a means of encouraging others to adopt the belief as well. For some this will entail a vegetarian stance. Alternatively, as mentioned earlier, it may be the case that the thought of eating meat disgusts certain people; an emotional reaction again may contribute to our belief that it is wrong.[89] It may, of course, have nothing to do with these emotions at all. The point stands, however, that it is very likely that intense

[88] The gradual imposition of clothing by missionaries onto native populations world-wide is a terrific example of the moral coming *before* the emotion. Before the missionaries came, it is reasonable to assume that certain native populations felt no shame in their nakedness. Once it was no longer acceptable, some of these native populations most likely adopted this moral rule into their own cultures, considering nakedness to be shameful. This was certainly how I experienced modesty norms during years I spent living in Central America and the Caribbean. In the Caribbean (at least in Martinique, where I lived) in particular, it is the colonial tourists (somewhat ironically) who these days arrive and insult the locals with what they perceive to be the visitors' lack of modesty on the beaches and in the streets.

[89] For an insightful introduction to question of disgust and its links to morality, see Dan Jones' 2007 paper "The depths of disgust." (*Nature, 447*, 768-771.)

emotional experiences may lead people to conclude that certain actions (thoughts, beliefs etc.) are morally right or wrong, a belief that they express via moral rules. Hume famously referred to this process as one in which we undertake a "...gilding and staining [of] natural objects with the colours borrowed from internal sentiment." (Hume 1752, Appendix I). This is the position of Jonathon Haidt, for example – a position that will be discussed in greater depth in Chapter 9.[90]

But maybe it is possible to go even further than this; maybe it is at times the very pleasantness or unpleasantness intrinsic to the experience of these emotions that constitutes the sense that something is morally right or wrong. Earlier on in this chapter the idea of the moral "ought" was explored. Here I argued that moral rules appear to be much more than mere social rules; they are endowed with something which Richard Joyce refers to as "moral clout". What I am suggesting here (somewhat tentatively) is that this "clout" might on occasion emanate from a series of intense intrinsically pleasurable or unpleasant experiences which we in turn express as being intrinsically "right" or "wrong" because they *feel* intrinsically right or wrong. Pleasurable experiences, for example, are experiences that we often seek out as ends in themselves; we do not need to go beyond the fact of experiencing the pleasure in order to explain why we might have sought them out. If the performance of certain acts likewise produces a certain type of pleasure, either directly, or via the experience of positive moral emotions, then one can understand why one might conclude that they are likewise *intrinsically* good: in other words, we transpose the experience of intrinsic pleasure into a judgment of intrinsic good. The contrary also holds. For example, it is plausible an individual's belief that it is morally wrong to hurt small children for fun seems might stem in part from the actual experience of psychological pain we feel when evoking the thought itself. This experience will serve importantly to strengthen his or her motivation to uphold a rule which prohibits hurting small children for fun. Moreover, it is highly probable that this is how the moral rule might have arisen in the first place.

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[90] See, for example, Jonathon Haidt's 2001 paper, "The emotional dog and its rational tail: A social intuitionist approach to moral judgment." (*Psychological Review, 108*, 804-835)

Returning to the case of vegetarianism, we see a further illustration of this point. When a person who is emotionally upset by the idea of killing animals for food claims that it is morally wrong, it could be conceived as an attempt to objectify their own intrinsically painful experience via the rationalisation that killing animals is intrinsically wrong (Haidt, 2001). According to this hypothesis, then, the "rightness" or "wrongness" is not some kind of mysterious entity that we experience above and beyond the emotion, or some kind of objective property or fact that we somehow intuit; rather, it is the expression of the nature of the experience that these emotions engender. In other words, we objectify these subjective (indeed, subconscious) experiences and then project them onto the world as prescriptive rules and judgements: the product is morality. This is an idea that is sometimes captured by the term "moral projectivism", and was most famously espoused by David Hume (Hume, [1740] 1978: 167).[91]

Richard Joyce, however, has come up with a different idea. What puzzles him about a hypothesis like the one I have sketched here is explaining how it all works. As he himself states:

> No matter how much I dislike something, this inclination alone is not relevant to my judgements concerning *others* pursing that thing...one of the adaptive advantages of moral judgement is precisely its capacity to unite these two matters (2006: 117).

He argues that in order to make this connection, a "certain kind of brain is required", a brain with "specific types of mechanisms geared for such learning" (2006: 139). His proposal is that the connection might plausibly be explained by the evolution of what he calls an "innate tendency to *make moral judgements*" (2008: 213) that enables us to make the transfer from a private internal experience to the "new creation" of a generalized rule (2006: 125).

[91] See Richard Joyce's discussion of this idea (2006:125).

While I agree that the existence of such a faculty – or adaptation, as he suggests it might be - would provide an easy way of explaining what would otherwise seem like a rather mysterious process, I nevertheless maintain that there are other explanations which describe how this process might occur which capture the different aspects of morality much better. Firstly, there are many reasons why my own experience of a situation might lead me to extend my conclusions to others. To begin with, a great number of our experiences actually involve others. Consequently, many of our moral rules concern managing our relationships and dealings with others (as argued in Part One). As this is the case, it is reasonable to conclude that in managing these relationships we want others to behave in ways that accord with our own wishes; or, more specifically with regards to morality, we want others to be bound by our moral rules and judgements *in order* that our desires be realised. For example, if I believe that paedophilia is morally wrong, I will usually extend this as a rule to everyone. This is partially because the judgement *involves* the actions of other people; by decreeing that it is wrong for everyone, I could be conceived as trying to make sure that it does not occur.

Our extension of moral rules to others might also be explained by the nature of our experience of "wrongness" itself. In this section I have argued that our own experience of the "wrongness" does not appear to be accompanied by the experience that it is wrong "...for me only": it is rather a "wrongness" that at times gains a sense of being objective from the intrinsically unpleasant reaction this experience generates. Once objectified, it seems normal that the rule which we use to express it be applied to everyone, and not just to us. This extension will seem even more justified when we see that others have similar reactions to the same type of situations that we do, thereby giving our own conclusions more credence.

These explanations do not, of course, describe processes of which we would be specifically conscious. We can also, however, explain them on a conscious level. For example, when we realise that others may not hold our views, we will often try to convince them that they are, perhaps, categorically wrong (in line with the way in

which we generally construe moral judgements ourselves). If we do not do this, we are tacitly giving them permission to engage in something that we might find morally repulsive. In other words, we do not want (indeed, don't often even believe we can in the first place) to say "I believe this, but that is just me; you believe as you like." To avoid this outcome, we might objectify our judgements, and eradicate the need to explain further by claiming that certain actions simply *are* ultimately right and wrong and do not *need* further justification beyond this. This kind of response can act as a means of attempting to stop any further inquiry. While this may begin to "...look massively self-obsessed an imposition of *our* wants on others" (Smith, 1991: 404), it is nonetheless a plausible description of what might actually happen in some cases.

Of course, just because we want others to accept our rules as binding, does not mean that they are going to consider them binding. But because others are able likewise able to experience the "goodness" or "badness" of certain situations themselves (as I mentioned above), they often do not require that there be much further explanation or convincing once they have understood the consequences of certain actions; they share the experience of there being certain situations in life(because we are a species which share many similar wants, needs and desires) that we want to encourage or stop, and this, in itself, goes some of the way towards their acceptance of the extension of certain moral rules to all people.

Thomas Nagel extends this point. He claims that people have good reasons to consider the welfare of others, for example, because it is rare that other people do not matter to us. The fact that we do care for them gives us a reason to refrain from harming them (Nagel, 1987: 6). While Nagel here means to mainly highlight the role of reason, his argument seems nevertheless perched on the melding of reason and emotion; we care about the interests of others because we are capable of empathizing with them, and, importantly, we are capable of caring for or even loving them. What we have, in sum, is a fusion of the two capacities working to produce the moral maxim.

> I think most people, unless they're crazy, would think that their own interests and harms matter, not only to themselves, but in a way that gives other people a reason to care about them too. We all think that when we suffer it is not just bad *for us*, but *bad, period* (Nagel, 1987: 6).

So while I think that Joyce's hypothesis has excellent explanatory power, I instead argue that the experience of emotions, in conjunction with our ability to reason about our experiences, is enough to explain how the transition from private experience to prescriptive moral judgement occurs. In this I am in agreement with Jonathan Haidt. I will, however, delay a more detailed discussion of this process to Chapter 9 where I specifically address the human reasoning capacity. For now I will elaborate on this hypothesis with respect to emotional experience in a bid to strengthen my case against Joyce and, more importantly, to strengthen my conclusion that morality is inextricably linked to human biology on many levels, but most clearly via its causal connection to a number of separate biological adaptations that humans have evolved.

The next issue to address is whether or not my claims here are sufficient as an explanation for all moral motivation. With an end to answering this question, the issue of pleasure and pain as motivators will be examined.

8:3 Pleasure and pain as motivators

> ***...the impersonal badness of pain is not some mysterious further property that all pains have but just the fact that there is reason for anyone capable of viewing the world objectively to want it to stop, whether it is his or someone else's (Nagel, 1998: 140).***

> ***"'Tis obvious, that when we have the prospect of pain or pleasure from any object, we feel a consequent emotion of aversion or propensity, and are carry'd to avoid or embrace what will give us this uneasiness or satisfaction...Tis from the prospect of pain or pleasure that the aversion or propensity arises towards any object: And these emotions extend themselves to the cause and effects of that object, as they are pointed out to us by reason and experience..." (Hume, 1994 [1888]: 118-119).***

The image that is emerging thus far is of a neurological and psychological framework which - amongst other things - enables us to be affected by the well being of others. I have suggested that at the heart of this framework are experiences of pleasure and pain, and – more moderately – comfort and discomfort. I also suggested that it is often our desire to avoid this pain (or experience the pleasure) which in turn contributes not only to our motivation to uphold moral principles and make moral judgements, but also to the *belief* that there is such thing as the moral right or wrong in the first place.[92]

This argument, however, requires some further discussion. Firstly, I have suggested that we are often propelled to do that which is pleasurable for us and to avoid the painful: this seems fairly uncontroversial. The reduction of human motivation to pleasure seeking and pain avoidance, however, appears somewhat exaggerated. It suffices to ask people whether or not they would trade attachment to Robert Nozick's (1974) hypothetical experience machine to life in the real world to discover that others consider this an exaggeration as well; rare is it to find any takers for the seemingly attractive endless stream of pleasures provided by the "experience machine" if it requires withdrawal from the real world (and its accompanying pains and woes.)[93] As Kim Sterelny points out, our cognitive machinery is far more complicated than such a reductive approach suggests:

> ... it is bizarre to suggest that an agent's only irreducible preferences are about pleasure and pain. Since preferences, like beliefs, are formulated in an open ended, rich system of mental representation there can be nothing in our cognitive engineering that restricts ultimate preferences to those about sensation. We

[92] Linking pain and pleasure to morality is not of course a novel approach. Utilitarianism is a normative ethical theory which holds that we ought to seek actions which maximize this pleasure (or utility) for the greatest number of people. It has an appeal to many people which derives from its provision of a good practical guide to morality based on what appears to be a fairly concrete fact about people; that is, that we seek to make our lives as ultimately pleasurable (and not just in a sensual way) as possible. In the words of Jeremy Bentham (often considered the "founder" of Utilitarianism), "Nature has placed mankind under the government of two sovereign masters, pain and pleasure – they govern us in al we do, in all we say, in all we think: Every effort we can make to throw off our subjection, will sere but to demonstrate and confirm it" (1789).

[93] This has been my own experience when I have proposed the "experience machine" to a number of undergraduate philosophy groups that I have taught.

> can have preferences about any state of the world that can be the topic of our beliefs. Having only hedonistic ultimate preferences can be no consequence of our fundamental cognitive architecture. Moreover ...there is no evolutionary reason to expect such a constraint to be wired in. For there is no reason to expect preferences about sensation to be a reliable way of ensuring fitness maximising action (Sterelny, 2000: 287-288).[94]

This, however, is not what I am actually arguing; I have simply suggested that it is *one* of the possible routes to the belief that there are categorically binding rules, thoughts and actions. For the purposes of the point I am making in this section, it suffices that one simply accepts that (A) our actions and beliefs are often strongly influenced by the products of our sentient capacity (B) that our sentience is often strongly implicated in both our motivation to behave in certain ways, and, more controversially (C) our belief that in behaving in these ways we are acting *morally*.

Secondly, and more pertinently, it might be objected that we do not judge everything that brings us pleasure to be morally right or good. Eating a chocolate bar brings me immense pleasure, but this does not mean that I consider it to be the morally right thing to do. How is it, then, that we differentiate the morally relevant issues from the morally irrelevant issues that arise from the experience of pleasure and pain?

Part of an answer can be given with reference to what it is that has provoked our emotional reaction. For instance, I have made the claim that morality is often concerned with our dealings with others.[95] So, I could argue that my eating of the chocolate bar has nothing to do with morality unless it involves the well being of somebody else. For example, it could become a moral issue if I had stolen the

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[94] This is a good point. For example, the pleasure centres are activated by numerous drugs and alcohol which can be dangerous, if not fatal, to the organism. But then such is the way however with many adaptations; they often give rise to effects – or lead to outcomes - other than those for which they were initially selected. In any case, I have not argued that *everything* that we do that brings us pleasure is fitness enhancing.

[95] This, of course, is not always the case. The virtue ethicist, for example, will focus more on the development of virtues in oneself. These virtues, however, do involve other people indirectly for they often encompass the types of qualities that make a person less vulnerable to committing immoral acts which involve other people.

chocolate from my sister, and had thus deprived *her* of pleasure. It would perhaps be considered a matter of even graver moral implications if the chocolate bar was the difference between the life and death of 5 people for whom it was the last food. In sum, it is from the association with the "other regarding" aspects of some of the pleasurable things that we do that might transform them into *moral* issues.

This, however, is not an entirely satisfying answer on its own, either. For one thing, there are many examples of moral judgements being applied to situations which involve ourselves only and have no (obvious) rapport with anyone else whatsoever. For example, some might consider masturbating – an otherwise pleasurable act which generally has no affect on anyone else other than the masturbator – to be morally wrong. Here we have two issues which threaten the proposals I have made so far: firstly, the act brings pleasure and yet is considered immoral; and secondly, it is an act which is not concerned with the welfare of anyone else.

There are different ways that I could respond to this. Firstly, though, I must emphasise that nowhere have I suggested that all things that bring us pleasure are also morally good. In fact, many things that bring us pleasure are considered morally wrong (illicit drug taking, for example). What I *have* suggested is that the pleasure or pain that accompanies *specific types of emotional experiences* - and by these, I mean emotions of a particularly intense nature - sometimes act as a motivator to uphold moral principles and might even be able to explain why we consider certain moral principles to be categorically binding.

One might still want to argue that I should then be able to draw a *clearer* line which indicates when something will be judged to be morally good, and when they will be judged to be "non-morally" good. What I suggest, however, is that there is no definitive line: sometimes it will simply be a case of individual circumstance that will dictate when this line might be drawn. While this may seem an unsatisfactory answer, it is nonetheless in keeping with my overall argument that morality cannot be pinned down to a particular role and that moral motivation cannot be traced to a

single specific source. For example, I have argued that emotions may give rise to moral rules (such as an empathetic reaction to the suffering of animals leading to vegetarianism). Then again, they may not. I suggest that in the cases where our empathetic reactions do lead to moral judgements, what these judgements actually express may differ as well. It might be that in expressing moral condemnation of eating animals I am expressing my desire that the killing of animals cease; this will be extended to others, because it is often others who are doing the killing and morality serves the purpose of making this extension. I might also be simply expressing my own feeling that there is something very wrong about killing animals - without being able to actually offer a reason - in the strongest language I have.

Some situations, however, are likely to engender a more uniform emotional reaction from people. As I have suggested earlier in this thesis, humans do seem to be born with an array of mechanisms which are not quite as plastic as others. I have suggested that some of these mechanisms – including those that give rise to empathetic reactions (a point for which I will argue more fully in the next section) – have an adaptive role in ensuring that our offspring are cared for and that our genes are thereby passed on, and that they will thus be of a fairly intense nature. It is not difficult to imagine that the intense emotional attachments we have to our children and the emotional pain that gratuitous harm caused to them would elicit might have something to do with the moral condemnation that such harm almost universally receives. It also makes sense that moral rules which protect our children are more ubiquitous than those that protect unrelated species, since the biological mechanisms which forge our emotional commitments to our children were selected for their role in ensuring we care for *them*, specifically.[96]

Importantly as well, I have argued that our emotional experiences may serve to augment our motivation to adopt or subscribe to an existing moral rule which has been imposed by someone else – in this case, then, the line has already been drawn

[96] In Part One I suggested that kin recognition mechanisms will aid us to make the difference between kin, and non-kin, for example.

for us. For example, masturbating may not involve anybody else, but if I live in a social group in which masturbating is considered wrong, and this has been "drummed into me" from an early age, then I might be led to feel guilty when I am doing it. This guilt, in turn, may contribute to my eventual belief that masturbation is morally wrong, by virtue of the intrinsically painful nature of the guilt. Or it might not, in which case the rule proscribing masturbation will remain a social rule only. This recalls Peter Singer's useful distinction between morals and rules in which he claims that while we can obey or disobey rules only, moral rules are about ensuring that values are "maximized" (Singer, 1979: 11)[97]. In this case, then, the line between the moral and the non-moral is something that is imposed by the social group that I too have come to adopt. It becomes a moral rule for me, however, once I accept that it has value. If performing an action is accompanied by a strong positive emotional reaction then it is likely that this may contribute to the value that it might have.

This last point recalls an earlier one I made with respect to the process of norm-internalisation that occurs when we are children. Here I can supplement this argument by adding the emotions as a partial explanation for how this internalization might occur. When a child is punished, they often experience a certain level of emotional pain (whether it be from having something taken away from them, or being scolded or in experiencing disapproval, for example). In the future, similar transgressions might also be accompanied by negative emotional experiences such as guilt, shame, or sorrow. Even when considering the transgression, a child might come to associate it with negative experiences and avoid it on these grounds. Eventually, by association, one can see the process by which the rule may be eventually internalized as a moral rule (that is, something which we not only know is wrong, but that we also experience as wrong).

Richard Joyce, however, challenges the claim that punishment can in any way lead to the internalization of moral norms (Joyce, 2006: 137). In particular, he claims that as

[97] In Singer's words,, "The difference between a value an a rule is that it makes sense to maximise a value – to increase it as much as possible- whereas we can only comply with a rule".

yet there has been no satisfactory explanation for *how* the punishment of an action actually leads to the internalization of the norm in the first place. I argue however, that the explanations I have offered in this chapter suffice to explain the process. For instance, the fear that the threat of punishment engenders in a child, or even the pain that punishment inflicts, might alone be sufficient for the child to personally adopt the public moral rule as a personal moral rule. The child, according to this explanation, will generally come to not only be told that it is wrong; he or she will also come to experience it as wrong inasmuch as it involves the intrinsically unpleasant emotional experience. Later, wider experience of the world, coupled with the ability to reason about situations, may lead to either the concretisation of the belief or, conversely, to its rejection. It seems clear however that a strong painful emotional reaction is enough to explain how it is that punishment, for instance, at least contributes to the internalization of a specific norm. An extra faculty – such as Joyce's moral sense - is not required. David Lahti agrees:

> The evolutionary ethicist who postulates an illusion of objective moral guidelines as a vehicle for adaptive behaviour is proposing a biologically unprecedented mechanism for a purpose which is achieved regularly in nature by much more straight forward means. (Lahti, 2003: 644)

In short, I have argued that moral rules derive from different sources, serve a number of different purposes and are employed to signify a number of different things. This means that it is not possible to say when exactly the line will be drawn between the moral and the non-moral with respect to the emotional pain and pleasure certain situations might cause.[98] What I do contend, however, is that part of what motivates us to believe there are categorically binding moral principles and, importantly, what leads us to form moral principles, is the pleasurable effects, or painful effects, that certain situations engender. I also contend that we are able to differentiate moral rules from other rules in the following ways: rules of a more general nature (A) do

[98] This could also be a considered a problem that Joyce's proposed adaptation also faces: we can just as easily ask at which point will a mechanism "objectify" our reactions, transferring a non-moral situation into a moral situation?

not elicit strong emotional reactions and (B) are not always importantly linked to the welfare of others (C) can usually be explained with reference to a tangible goal or end. While this does not allow a definitive distinction to be made in every case, I argue that this is because there is not one to be made in the first place.

8:4 The neurological basis of emotions

At various points throughout this thesis, I have claimed that my arguments suggest that there are not moral facts at the core of morality. This, I argue, is partially because we can explain why we believe that there are categorically binding moral facts without reference to their actually *being* such things as moral facts. Rather, there appears to be a series of "biological facts" at the heart of morality which explain the content of our moral codes much better than moral facts, in any case. That we associate morality with objective facts in the first place is because it is our way of expressing our belief that there are certain actions, thoughts or characteristics which are intrinsically right or wrong. Right and wrong, in turn, suggest that there is factual truth involved about which we can be right and wrong in the first place. Recalling again Michael Smith's quote, "...we seem to think moral questions have correct answers, and that the correct answers are made correct by objective moral facts" (Smith, 1991: 400). According to the explanation I have provided here, however, this postulate of "intrinsic" right or wrong may be derived in part from intrinsically pleasurable or painful experiences that *feel* right or wrong – it is not the experience or intuition of a truth that is independent of us. These experiences are, instead, derived from biological (but not necessary) facts about us: that we are very strongly opposed both to suffering ourselves, and, more centrally to morality, the suffering of others. This opposition we express using moral concepts.

In this section, the proposed biological roots of these emotions will be briefly explored in order to support this argument. Here I will argue (as others have done before me) that without the ability to both experience certain emotions, and to understand that others experience them too, one's ability to be morally motivated is

severely impaired.[99] For example people who lack these abilities also often seem incapable of seeing moral rules as any different to ordinary rules. This supports the argument that our emotions are causally linked to our experience of morality as categorically binding since it suggests that part of the reason that people who have neurological impairment seem incapable of being morally motivated is (A) they do not see the moral principles as being categorically binding because (B) the moral principles themselves (or the *subjects* of the moral principles) rouse no emotion at all in them. Consequently, arguing for the plausibility that emotions (which both motivate us to follow and create moral rules) arise from a biological source (which has no necessary existence) also suggests that the "moral" of moral rules insofar as it is linked to these emotions also does not have any kind of necessary existence beyond the subject experiencing the emotions.

It will not of course prove this point; one might argue, for example, that the capacities we have evolved are in fact just a means of perceiving the objective reality that is morality. This is a reasonable objection and I will address it again in Part Four. Briefly here, however, I mention three major points which suggest that this is not the case. Firstly, in the next section I will argue that the features of human biology which enable us to be morally motivated or simply to be "moral agents" did not evolve for anything directly to do with the purpose of "being moral" or "perceiving things as morally binding". When this point is combined with the contention that (A) there is irreconcilable relativity of certain moral rules (which also suggests – but of course also does not prove – that there are no moral facts [Part Two])[100], as well as (B) that many of our rules seem to have been imposed for their social usefulness (which suggests that they are importantly linked to fitness enhancement (Parts One and Two), a strong case is erected for suggesting that morality is a useful evolutionary bi-product, rather than a set of objective truths about the world that exists independently of humans. As stated, however, I will take these points up again in Part Four. In this section, I will focus specifically on the biological bases of emotional experiences.

[99] I will mention these people along with their particular arguments throughout this section.
[100] This is Mackie's argument (1977:36). See Part Four for an elaboration of this point.

The hypothesis that emotional capacity is the product of neurological mechanisms is gaining in credibility. In fact, recent evidence has even led to conclusions about which specific parts of the brain are responsible for generating human emotions. These conclusions have been drawn largely from research into people with varying forms of brain damage. Most famously, of course, has been the research based on the case of Phinneus Gage, a railway worker whose skull, and consequently the orbitofrontal cortex, was perforated by an iron rod. While Gage apparently suffered no intellectual damage, aspects of his behaviour went into considerable decline. For example, while previously noted for his diligence at his place of work, post-accident he became an unreliable worker. His family life reportedly also went into decline as a result of an apparent lack of concern he increasingly showed for them (Harlow, 1848).

Other cases of orbitofrontal cortex (OFC) damage have since confirmed its role in regulating social behaviour (Dolan, 1999; Anderson, et al, 1999). Exactly how, is under debate. It has been suggested, for example, that damage to the OFC may impair the victims' ability to use emotional signalling (that is, when emotions associated with past events are recalled) to aid in making decisions about future courses of similar action. Instead, they have to rely simply on considerations of immediate significance (Dolan, 1999: 928). Also, many victims show an impaired ability to assess the outcomes of socially orientated actions.[101] This would mean that

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[101] Another neurological mechanism suggested to be instrumental in generating moral judgements is the "violence inhibition mechanism" (VIM), which, as the name suggests, works to prevent violent reactions to certain situations. For example, it has been contended that the violence inhibition mechanism can be triggered by certain cues, such as seeing someone looking sad, or in pain. For Blair, this is a mechanism which is central to the judgement that something is *morally* bad, rather than just "conventionally bad" (Blair 1995). This claim has met with similar resistance to the suggestion in section 8:3 that pain and pleasure are at the heart of moral decision making. S. Nichols for example, has claimed that Blair's conclusion is flawed since, since the "VIM" can be activated and yet not lead to the judgement of something being morally wrong at all. Seeing somebody receiving a tattoo and in a lot of pain may activate the "VIM" but may not lead to a judgement that it is morally wrong for the tattooist to be doing what they are doing.(Nichols, 2002)[101]. As I replied to the similar objection in Section 8:3, context will most likely determine the transition. In the case of the tattooist, one's emotional reaction will not translate into a moral reaction while one is aware that it involves a situation of consensual causing of pain. A child who is not aware of this, however, may conclude that what is occurring is something "bad".

adherence to and application of certain rules might become quite difficult. For example, if one cannot recall the positive emotions associated with certain acts performed in the past, one might be less likely to perform them regularly. Or, conversely, if negative emotions are detached from the thought of performing a particular action, then one might have less motivation to desist from performing them. If one argues, as I have done, that emotions are central to the generation of moral rules, then one can also understand how damage to these centres might interfere with the ability to even make the rules in the first place. These points help explain the behaviour of people like Phinneus Gage and their "moral" lapses.

Studies of psychopaths are also revealing in terms of establishing the neurological basis of our tendency to differentiate the moral rule and an ordinary rule via the experience of emotions. For instance, while psychopaths do not seem to share the same extent of problems with theory of mind as those with autism, for example, they nonetheless manifest difficulty with emotional empathy, and often show little recognition of emotions such as sadness or fear in others (Blair, 2005: 710).[102] Coupled with this is an apparent lack of ability to feel shame, guilt or remorse (Smith, 1984: 191). In the words of Goodenough and Deacon:

> A psychopath can negotiate hierarchy and execute strategic reciprocity without difficulty, and can learn, and simulate moral behaviour when this suits his purposes. But, be it by inborn error, brain injury, or childhood deprivation, he lacks the capacity to experience moral experience, to feel anything in the way of empathy, to put himself in another's shoes.

[102] The condition of autism is also often used to illustrate a connection between brain impairment and the capacity to feel emotions, the condition of autism might be considered. While there is not the space or necessity to enter into a detailed discussion of autism here, (and besides, there appears to be much unresolved debate about the varieties and extremes of the illness) what is of relevance is that one of the most widely recognised traits of severely autistic people is their apparent inability to feel or understand certain emotions, notably empathy. This appears to derive primarily from an impaired ability to understand that others might feel differently than us in the first place; that is to say, that there are problems in terms of theory of mind in people with autism (Baron-Cohen et al., 1985). It should be noted that this, is controversial as well (see Blair, 2005: 710). There are alternative theories about the cause of autism. It has also been ascribed to defects in the mirror neuron system, which interferes with an agent's ability to learn via imitation. Jeanette Kennett (2002) discusses this point and refers to Jacoboni and Dapretto (2006) as a further reference.

> Morality without empathy is by definition oxymoronic (Goodenough & Deacon, 2003: 815).

It is, of course, difficult to explain the psychopath's apparent inability to form moral beliefs about circumstances or people without begging the question somewhat. For example, simply concluding that a psychopath who has impaired empathetic capacity is not able to be morally motivated *because* of this impairment does not contribute to an *argument* that the emotions are centrally implicated in the formation of morality: it just assumes what one is trying to establish. Nevertheless the fact of the psychopath's impaired empathetic ability (coupled with a documented lack of ability to feel remorse or guilt) does seem to add to the evidence in favour of this contention. In order to bolster this claim, we might, for example, offer cases in which psychopaths do not seem to be moved by the moral rules of the majority. These should not be too difficult to find, considering that psychopathy is often (sometimes wrongly) linked to some of the most extreme forms of gratuitous violence (serial killings, for example). Violent crimes are not the sole domain of the psychopath, of course. Also, psychopaths do not necessarily commit violent crimes – or any crimes, for that matter. What does distinguish the psychopath from the ordinary criminal in terms of crimes they might commit, however, is that their apparent lack of ability to feel emotionally moved by friends or family members means that they are just as likely to commit crimes against them, as anybody (Walker 1966: 50: Walker and McCabe 1973, 226)[103]. This is famously supported by examples given in Hervey Cleckley's 1964 *The mask of sanity.* [104] Indeed, Cleckley's research is widely considered a rich source of examples which support a connection between psychopathy, emotional impairment and morality.

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[103] This example was taken from Lloyd Fields (1996: 263).

[104] See Cleckley's Milt who left his ill mother waiting on a bridge by herself for over an hour because he was sidetracked by a number other minor whims that distracted him. Of particular note was his apparent lack of remorse, and also the fact that he was angered that his mother did not wait for him, but rather sought out help from someone else (Cleckley, 1964: 189).

Caution is required again, here, however, since I have suggested in Chapter 7 that we do sometimes form moral rules which have little relevance to what the public morality might prescribe. Indeed, in arguing, as I am, that there are no such thing as objective mind-independent moral facts, I am effectively opening the door to a wide range of possible moral rules which, as long as they are believed to be categorically binding and irreducibly right or wrong, qualify as moral rules. Perhaps one might argue, then, that certain psychopaths have their own individual moral rules which simply differ from what we would consider to be morally valid. The fact that there does seem to be a core set of quasi-universal moral rules that psychopaths tend to routinely violate (be kind to your family members, for example) suggests, however, that the reason they do violate them is that they are incapable of seeing them - or any rule, for that matter - as morally relevant (in the sense that I have given here) at all. This, both I and others contend, is because they have impaired empathetic ability: that is, they cannot form attachments based on (A) feelings of concern for the welfare of others and (B) deeply felt emotional responses. This consequently eliminates a large portion of the typical moral realm (a realm which is predominantly, although not exclusively, other regarding) from the psychopath's range of consideration. Accounts of their behaviour and attitudes, moreover, suggest that even if they do concern themselves with developing personal moral virtues, for example, they are virtues of a rather peculiar type. In sum, it seems unlikely that psychopaths genuinely subscribe to *moral* principles at all.

Some, however, might argue that the term "psychopath" or "sociopath" is somewhat vague. It is indeed true that in the past people were locked away in asylums for behaviour suggesting "mental illness" which today is not considered mental illness at all. But while historically, it might have been conceivable to consider one culture's sociopath as another's visionary, today there is sufficient cross cultural evidence which indicates a commonality in traits between a core group of sociopaths and psychopaths throughout the world. To support this, neuro-imaging performed on psychopaths demonstrates that there is indeed a difference in the neurology of these people, including impaired functioning of the limbic regions as well as deficient

substance in the prefrontal cortex (Moll et al., 2005: 801). This, combined with some of the cases briefly discussed above, suggests that the neurological damage from which some psychopaths suffer is specifically to areas which generate certain emotional responses, such as empathy.

Indeed, many of the conclusions drawn regarding the connection between neurological mechanisms and the ability to feel emotions have been gleaned from the use of neuro imaging which enables scientists to see which different parts of the brain are activated when certain emotions are being experienced. In one particular study, for example, a group of people were shown a number of a series of emotionally charged moral transgressions, whilst undergoing brain monitoring via functional magnetic resonance imaging (fMRI scans). The different pictures revealed activity notably in the anterior pre-frontal cortex (PFC), the Medial orbitofrontal cortex (OFC), the superior temporal sulcus (STS) region, brainstem and limbic structures (Moll et al., 2005: 803). Fear and disgust, notably, were shown to activate principally the brainstem and limbic areas of the brain, but not the OFC and STS (Moll et al., 205: 803). Such findings firmly underscore the biological bases of our emotional reactions and their connection to our moral judgements.

Before moving on, a final point is worth mentioning. What is particularly interesting in a comparison made between adult onset damage to the prefrontal cortex and infantile damage was that while both adults and children demonstrated difficulties integrating into the social system, differences regarding actual knowledge of social norms and morals were observed (Anderson et al. 1999). The results of this study suggested that while social behaviour and decision making ability is impaired as a result of damage to the PFC, normal intellectual abilities are not affected, as mentioned above. Consequently, adults who have *learned* what is socially or morally appropriate in their community are able to fall back on this knowledge even in the advent of prefrontal cortex (PFC) damage, resulting in less severely impaired social behaviour. The infants studied, however, did not have this information to begin with and were unable to use it or acquire it due to the early occurrence of their injuries.

(Anderson et al., 1999: 1035). Whether or not it could be said, however, that the adults were operating in a genuinely moral manner or rather simply in a way that mimicked this behaviour will be discussed presently

Neuroscience, as mentioned earlier, is very much in its infancy. Consequently there is significant controversy regarding interpretation of findings and results. Consensus does tend to converge, however, on the conclusion that there appears to be a link between damage to specific parts of the brain and ability to connect with people on an emotional level. Accordingly, it becomes clear that questioning the ability of all people to experience emotions questioned in Section 8:1 is not as misplaced as it first seemed. It suggests that humans evolved specific emotional capacities and that these capacities are part of our neurology. It suggests, moreover, that these capacities are distinct, individual capacities – or "modules" as they are often referred to - since damage to certain parts of the brain might affect ability to feel certain emotions, but may not interfere with other neurological capacities such as the ability to think and reason (Psychopathy). In other cases, intelligence might be impaired, while other functions are more or less intact (Down syndrome) (Carruthers, 2004: 305).[105] Indeed this accords with the arguments of Evolutionary Psychologists for the "Swiss army knife" (Cosmides, 1994) modular nature of the human brain which will be briefly discussed in the next section.

8.5 Evolutionary psychology

> ***What is special about the human mind is not that it gave up "instinct" in order to become flexible, but that it proliferated "instincts"-- that is, content-specific problem-solving specializations (Tooby and Cosmides, 1992:113).***

[105] It should be noted that it is not at all clear that psychopaths' alleged amorality is the pure consequent of inability to feel empathy. Jeanette Kennett, for example, presents Hare's arguments for the existence of what she terms "rational defects" that plague the psychopath and which might have important ramifications for their ability to be considered moral agents. These include a certain "mental discontinuity" which affects one's ability, for instance, to consider long-term goals and to control one's impulses on the basis of these. This, according to Hare, may contribute to the psychopaths' amorality. (Hare [1993: 142] as cited in Kennett, 2006: 77)

The prior discussion recalls some of the claims of evolutionary psychologists, who I briefly mentioned in Part One where some of their contentions regarding kin-identifying mechanisms were considered. While there is not the space to go too far into evolutionary psychology here, it is worth pausing to consider at least some of their arguments since they contribute to the portrait of humans as organisms biologically programmed to feel certain emotions.

To begin with, one of evolutionary psychology's (EP) significant claims (which is of relevance here) is that much of what we do is still driven to a greater or lesser extent by a neural system which was developed during the time of our earliest ancestors (Tooby & Cosmides, 1992).[106] Consequently, they argue, there are significant portions of the way we think and react to certain situations that are governed by adaptations which were shaped by needs relevant to the members of the earliest societies. We are, in the words of Eaton and colleagues, "stoneagers in the fast lane" (Eaton et al, 1988).

Some of the better known examples EP offers concern human sexuality and the preferences which guide humans in their choices of mates. They suggest such things as neural mechanisms which incline men, for example, to prefer women of a certain build (low waist to hip ratio, specifically) (Singh, 1993, Singh & Luis, 1995) which in turn is supposedly an indication of sexual ripeness and fecundity. Such desires or inclinations are what Ernst Mayr (1961) famously referred to as "proximate mechanisms" which propel us to avoid or seek out certain things which are biologically disadvantageous or advantageous (the "ultimate causes"). Of course we are not aware of *why* - evolutionarily speaking - it is that we have the attraction or repulsion, we are only aware that we have it.

> A desire to have sex with a specific person in a particular context for example, won't (of course) have been produced by

[106] This time is often referred to as "the environment of evolutionary adaptation" and is usually considered to be during the Pleistocene.

> reasoning that such an act is likely to fulfil some sort of evolutionary goal of producing many healthy descendants. Rather, it will have been generated by some system (a module) that has evolved for the purpose, which takes as input a variety of kinds of perceptual and non perceptual information, and then generates, when appropriate, a desire of some given strength. (Whether that desire is then acted upon will, of course, depend upon the other desires that the subject possesses at the time, and on his or her relevant beliefs.)(Carruthers, 2004: 299).

Many of these preferences are experienced via neurologically generated emotional responses, according to evolutionary psychologists. The emotion of fear is a typical example of emotions that they claim evolved in the ancestral climate. The fact that many humans (and other primates apparently) seem instinctively frightened of potentially dangerous animals such as spiders and snakes is given as further evidence that these modules were evolved in an environment where these animals were more of a risk (Pinker, 1977: 386-89).

Also cited frequently is the feeling of disgust we often experience at certain visceral displays or the sight of bloody injury or bodily infections. This is explained as an adaptation which serves the purpose of alerting us to something that is wrong, thereby inciting us to do something about it. If we enjoyed the sight of them, we would be far less likely to do something about it (Levy, 2004: 471). We also encountered the EP arguments earlier when examining mechanisms for kin altruism. Here I briefly explored biological mechanisms in place which lessen the likelihood that sexual relationships might be formed. Kin identifying mechanisms such as the major histocompatibility complex (MHC) have been shown to manifest themselves in a dislike (akin to disgust) of the odour of somebody who shares the same MHC with you.

The likelihood that neurological mechanisms responsible for emotions evolved for such purposes should not be too difficult to accept. It appears entirely unsurprising, for example, that our biology might include adaptations which predispose us

positively towards sexual behaviour; reproduction is, after all, central to evolutionary success. Likewise the contention that some of the emotions that propel us to care for our newborn children are adaptations is also highly likely.

Whether or not one finally accepts the entirety of evolutionary psychological explanation for behaviour is another question. While there is significant plausibility to much of what EP has to say about the configuration of the human brain as outlined so far, other claims are considered more dubious since, for example, they are a little too environmentally dismissive. For instance there is often not enough attention given to the role that culture plays in overriding some of the predispositions that EP suggests (Levy, 2004). To cite a famous example, in an oft-cited paper by D. Singh it was concluded that there is an innate male preference for the 0.7 waist hip ratio in women, as mentioned above. However, while this might be true for many men of many different cultures, there are nonetheless notable exceptions to this rule[107]. This, of course, does not amount to evidence against the predisposition, but it does highlight the importance of cultural influence with regards to mate choice (Levy, 2004: 467-468). Also, even if there are these dispositions, EP has a tendency to exaggerate their potency. Humans may well fear snakes and spiders, but this is usually because we are *taught* to do so as well; we are also taught not to do so, as inhabitants of Papua New Guinea who actually eat spiders will testify (Diamond, 1993: 265). Those arguing for a cultural role in behavioural shaping (as I do) might accept that there are these ancestral adaptive behaviours, but nevertheless claim that social learning and shaping can occasionally override these adaptive inclinations. As Neil Levy expresses it, "Human Beings are more complex, and more varied, both historically and culturally, than EP admits" (Levy, 2004: 471).

These points, however, do not constitute the defeat of the EP argument for innate emotional modules. Rather, they are simply a reminder that biology can be shaped by environment – both social and physical. This was one of the main points of Part One.

[107] Levy cites the Yomybato tribe in Peru as an example of a culture that actually prefers that women have a very high waist-to-hip ratio.

For the purposes of the argument here, an acceptance of all that EP has to say is not required. It is enough to accept the following points: firstly, that we do have neurologically based emotional capacities – this seems uncontroversial; secondly, that these emotions are the product of capacities that most likely evolved as adaptations. (This too seems highly likely if one accepts the evidence presented here.); thirdly, that these capacities sometimes produce emotional reactions that have a profound effect on the way we perceive and react to our environment (which also seems plausible) and, importantly (as I have argued here), our propensity to perceive some actions, beliefs and attitudes as categorically binding (which, I am hoping, is starting to seem less controversial).

8:6 The adaptive role of emotions

> ***If being nice feels good then that is good reason for being nice. It is also a good reason for a pattern of behaviour to evolve and remain in an animal's arsenal (Bekoff, 2004: 498).***

What I have argued, in sum, is that there are convincing empirical grounds for concluding that our emotions are causally linked to morality, since impairments to the parts of the brain associated with these emotions appear likewise to impact on the ability to understand – and hence care about – the welfare of others, a central component of moral rules. More importantly, however, is evidence that certain individuals with such impairments – like psychopaths – seem to have difficulty distinguishing moral rules from ordinary rules. There is thus also fairly strong evidence that the emotions are the product of evolved biological mechanisms. In this section, I will give a brief overview of the possible adaptive roles some of the different emotions have. This will help establish my argument that our emotions are the products of biological mechanisms selected for purposes other than the generation of moral rules, or a moral sense. Instead, I will argue that they have been "exapted" to other ends *including* the generation of moral rules, which themselves are often fitness enhancing, but not always. If my argument is successful, it will contribute to

my argument that the emotions are "moral" adaptations (that is, that they may have been selected for a particular role in morality).

The first thing to note, as mentioned in Part One (and Part Two), is that finding the adaptive function of a trait is not always an obvious or straight forward exercise. This is particularly the case in neurology, which, as mentioned, is a relatively new science. Nevertheless, some of the more popular suggestions will be explored here in order to make my intended point. The second thing to consider, as Richard Joyce correctly points out, is that there is not a generalized "emotional faculty" as he puts it (2006: 94). Instead, there are a range of emotions which are the product of different biological mechanisms and which have been selected for different traits that they individually produce, as I have just suggested. Joyce also correctly points out that culture has a role to play in the differentiation of emotions (2006: 95).[108] In spite of this, however, he concludes that there does seem to be a basic cross-cultural convergence with respect to a set of general emotions, a position I will adopt as well in suggesting that empathy is amongst these emotions. It is also central to morality as it has been presented in this thesis, and as such, it is again a good candidate for consideration.

There are various adaptive stories attached to the evolution of empathy, the most popular being that the mechanisms involved in generating empathy were, at their origin, adaptive means of ensuring a certain level of bonding between caretakers and infants (Plutchik, 1987) [109]. If this attachment does not occur, babies would most likely be abandoned at birth which for a human baby would signal death. It should

[108] Joyce mentions the identification of eight different words in Chinese which are differentiated from each other, but which are translated into English as simply referring to the emotion of "Shame" (Wang & Fischer, 1994).

[109] This is not the only hypothesis. Another, for example, is the idea that if we can empathise (in the sense of being able to take the perspective of someone else), we can also work out when somebody else is not telling the truth. It also helps us to manipulate people when we know what they are thinking (Smith, 2006: 4). Peter Railton gives an even broader adaptive story: "...empathy – understood as a capacity to simulate the internal states of others...by modeling them using ones own cognitive and motivational repertoire – is important not only to impartial benevolence, but also to language learning and communication, social accommodation, escaping or attacking an enemy, courting a mate, hunting a prey, or deceiving one's audience."(2000: 59).

not be surprising, then, that we have evolved adaptations which contribute to the likelihood that the bonding occurs. Plutchik, for example, discusses the connection between an infant's facial expressions (smiling, for example) and a variety of emotional reactions they elicit in parents (via emotional contagion). The emotional reactions in turn incite the parent to care for the child, which, according to Plutchick, constitutes the adaptive significance of the emotions themselves. As he himself sums up this argument,

> One ...important aspect of empathy in an evolutionary context is that it serves to bond individuals to one another, especially mothers to infants...From an evolutionary point of view, the organism is most vulnerable to the vicissitudes of the environment, including predation, when it is new born...Because survival is a problem from the moment of birth, certain mechanisms must exist both in the child and in the mother or caretaker to help ensure survival...emotions emitted by the infant function in part as communication signals that have various adaptive consequences for survival (Pluchik, 1983) for example, by attracting a nurturing adult to a hungry or lost infant (Pluchik, 1987: 43).[110]

The evolution of the capacities required to produce empathy appear to predate *Homo sapiens*. Chimpanzees, our closest living relative, also have offspring which not only require a considerable amount of post-natal nurturing, but also exhibit similar kinds of behaviour eliciting such care as our own offspring do(de Waal, 2008). This suggests that they are homologous traits (Bekoff, 2004: 498) that both we and our primate cousins have retained from a common ancestor that existed prior to our evolution. Some of the other capacities I have claimed are central to the formation of morality, however, are much more recently evolved adaptations. The evolution of complex language (which, I have argued is human phenomenon), for example, is posited around 100 000 years ago, as mentioned in Chapter 6 (Lieberman, 1998). In Part Two I argued that language almost certainly did not evolve for the purpose of generating morality. It is, nonetheless, central to its existence. For example, language enables humans to actually *express* moral concepts, formulate rules based on these

[110] He cites a number of different papers that support this hypothesis, including Frodi et al. (1978).

concepts (as I suggested in Part Two), and importantly, allows for the dissemination of these rules. Since morality thus appears to post-date the time during which complex language skills evolved, it seems reasonable to conclude that at least emotional contagion (for it is not clear that other living primates have theory of mind, as I will suggest in Section 8:7) predates morality *significantly*. Consequently, it does not seem plausible to suggest that empathy produced by emotional contagion was selected specifically for the role (I argue) that it now plays in both motivating and generating moral rules.

I have argued in this chapter that many emotions arise from situations which involve the "interest or welfare" of others. Morality too is concerned largely – though not always – with our relationships with others, hence it seems fair that certain emotions are sometimes referred to as "moral emotions" in recognition of this relationship. I have avoided the use of this term because it suggests that the mechanisms involved in generating emotions were selected for functions significant to morality only. While I have argued that they are central to the morally relevant experiences, I do not claim that they are necessarily linked to morality, as I have argued with respect to empathy above.

A more plausible general explanation for the evolution of much of our emotional "artillery", then, can be given in terms of its role in generating different aspects of pro-social behaviour. Because morality is importantly tied to prosocial regulation, as I have argued extensively in this thesis, these emotions have also come to have a significant role to play in the generation and maintenance of important aspects of morality as well. For example, Robert Trivers has famously argued that what he called "moralistic aggression" evolved in order to deter others from cheating (1971, 1983). He also suggested that more generally human emotions were selected primarily for their role in managing reciprocation (1971). In his own words:

> Friendship dislike, moralistic aggression, gratitude, sympathy, trust, suspicion, trustworthiness, aspects of guilt, and some

> forms of dishonesty and hypocrisy... [are]... important adaptations to regulate the altruistic system (1971: 35).[111]

This quote specifies that our emotions were selected for the purposes of generating altruism, which, as I argued in Part One, is a feature of most cultural moral codes. This is somewhat misleading, however; the altruism with which Trivers was primarily concerned was *reciprocal* altruism. I contend that reciprocal altruism is not the same thing as moral altruism. In the case of moral altruism, the conscious intention for behaving altruistically is not supposed to be selfish; it should be other-serving. If I am performing a kindness for you only in the hope of receiving an act of kindness from you in the future, then I could not truly be said to be acting altruistically in a morally relevant way. This seems rather to be a selfish act since I am performing the action with view only to obtaining something for myself. This accords perfectly well with the system of reciprocal altruism and, as such, an explanation of how cooperative exchanges are enabled, and perhaps were enabled at their origins. Moral altruism, however, as I stated above, is usually conceived to be the opposite of selfishness. In the words of Singer, "Reciprocal altruism seems not really altruism at all; it could be more accurately described as enlightened self interest" (1981: 42). I suggest, then, that while the emotions were selected because they facilitated cooperation, moral rules emerged later in our evolutionary history. It is plausible, in fact, that they became particularly important as a means of ensuring that this cooperation occurred once groups grew to a size that would make the tracking of reciprocal exchanges quite difficult.[112]

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[111] Guilt is another interesting emotion to explore with respect to its relevance to morality. Guilt is very often associated with moral transgression, and has been contended by some to actually have evolved for the purpose of "moral policing". (See Tangney et al. 2007). Guilt, however, can also arise from non-moral issues. For instance, eating a chocolate bar when on a diet may arouse guilt, but this can hardly be described as moral guilt. It seems highly plausible that guilt is a response to the transgression of an important rule, but that the rule need not be of a moral nature. It is a form of self-punishment that arises in anticipation of the knowledge that one has committed a punishable offence. One does not, however, necessarily need to believe that one's crime is morally wrong to feel guilty.

[112] This is one of the suggestions that have been pitted, in particular, against difficulties that arise from the famous "tit-for-tat" scenarios that are used as explanations for the evolution of certain forms of cooperation. As Joseph Henrich points out, "tit for tat" relies on certain conditions that cannot be met when the pool of people becomes too large; it would become, for example, very difficult for a reciprocator dealing with hundreds of people over a long period of time to remember all transactions let alone respond accordingly to

In sum, then, accepting the argument that our emotions are the product of biological adaptations is not tantamount to saying that all of the traits or behaviours to which they have given rise explain their selective history. As we have seen in this chapter, and in Part One, many adaptations have given rise to behaviour that seems far removed from their original adaptive function. As Elliot Sober points out with regards to mathematics:

> Human beings now have the ability to do trigonometry; yet no one supposes that there must have been selection for that ability in our ancestral past. Rather, it is far more plausible to think that there was selection for some other suite of mental characteristics. Perhaps there was selection for increased intelligence and language use. Once these traits evolved, and human brings subsequently found themselves in environments rather unlike the ancestral ones, various spin-off properties became visible (Sober, 1998: 476).

In a like manner, much that is generated by the emotions seems to be "spin-offs" of having the emotions. Some of these spin-offs may in some circumstances enhance our fitness prospects in turn. For example, it is clear that being able to experience empathy facilitates the formation of relationships with others beyond the immediate family. [113] While some of these relationships may prove fitness enhancing for the

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each one. Vast groupings as are seen in human societies, therefore, seem to be way beyond the limits of such strategies and therefore need to be explained in some other way. In the words of Henrich;

> ...most theoretical models of reciprocity explore only 2 person interactions. Despite this, many scholars have falsely assumed that the qualitative aspects of the 2 person results can be generalized to n-person situations. However, Boyd and Richerson's (1988) analysis of an n-person repeated prisoner's dilemmas shows that the results do not generalize for groups larger than about 10 individuals. ...Reciprocity, on its own, is unlikely to solve the problem of cooperation in large groups. ...(Henrich, 2004: 10).

[113] This point has been elaborated by others. For example, Cameron Anderson and Dacher Keltner point out (citing the work of LaFrance & Ickes, 1981) that bonds between people can be created on the basis of the experience of certain emotions, and the communication of these experiences to others (2002, 22). To use a somewhat exaggerated example, one can see this kind of bonding occurring in situations when people group together to demonstrate their support of (or protest against) a certain political issue, for example. Anderson and Dasher also point to the fact that emotional reactions can even be a more accurate measure of trustworthiness, since, as they put it, "...it is more difficult to

individual (as argued in Part One) it seems highly unlikely that empathy-producing mechanisms evolved for this reason (Indeed, it would be positively maladaptive for people to be predisposed to develop positive emotional attachments to *everyone* they meet, a point I also made in Part One). But because emotional responses such as empathy can be filtered or tempered by other capacities (such as the ability to reflect and communicate) we can be more discriminate about the people with whom we form relationships. In the ensemble then, they may contribute to our survival prospects inasmuch as certain non-kin relationships can be fitness enhancing, but this does not mean that they are adaptations whose adaptive role is to serve this end.

There is not the space here obviously to cover all of the different theories about the selective history of the emotions. What I contend, however, is that several key mechanisms involved in generating emotions such as empathy were selected for fitness enhancing characteristics relating to facilitating cooperation or kin bonding, as suggested above. The fact also that many non-human animals also appear to also experience certain emotions suggests that they are homologous traits that pre-date human morality in any case, as mentioned above. I have also suggested that they operate via proximate mechanisms which generate either painful or pleasurable experiences. As Franz de Waal put it,

> ..If human sympathy is indeed the "inborn and indestructible instinct" that David Hume, Arthur Schopenhauer, Adam

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feign emotions than it is to deceive with words" (2002: 22) The sharing of emotions, then, may serve as a more solid proof of "solidarity", than a verbal expression of this solidarity might indicate.

Matt Ridley expands this explanation in his claim that emotions provide the cement in many types of cooperative ventures that otherwise would not be undertaken on the basis of rational calculation alone since they imbue tem with a depth of importance that may even defy reason. (1996: 135-36) In this way they serve the group and its individuals by facilitating relationships that otherwise might not be formed. (He draws his conclusions from those found in Robert Frank's *Passions within Reason* [1988]). In the words of Ridley:

> Rational people would be unable to convince each other of their commitment and would never close the deals. But we don't bring reason to such problems; we bring irrational commitment driven by our emotions. The entrepreneur does not cheat for fear of shame or guilt and she trusts her partner, knowing her to be a woman who does not like to face shame or guilt herself – a person of honour (Ridley, 1996: 135).

> Smith and others declared it to be, it is only natural that it comes with a built-in compensation in the same way that sex and eating do (1996:87).

I conclude then that human emotions such as empathy were not selected for the purpose of generating such things as moral rules, concepts or truths. What seems more likely is that (A) moral rules emerged from the growing social complexities that characterise human groups and our attempts to regulate these problems, as I argued in Parts One and Two, and (B) that part of their transition from social to "moral" rules can be linked to their becoming expressions of some of our strongest emotional reactions to situations we encounter during our lives, and our attempts to put these into words.

8:7 Emotions and non-human animals

I have suggested in this thesis that there is a significant gap in behaviour of other animals which seems suggestive of certain human moral behaviour and what we actually call genuine moral behaviour. I will discuss this in more detail in Chapter 13. In this section, I will focus on whether or not other animals – notably primates – are able to experience certain morally relevant emotions. This will be done via a consideration of the extent to which they could be considered to have "theory of mind", which, I have argued, is central to certain forms of empathy. It is, more importantly however, central to the experience of moral motivation.

Many different species of non-human animals exhibit what has been labelled "prosocial behaviour" in this thesis; that is, behaviour which enhances social cohesion within a particular group of animals. In this section I will argue that while this behaviour resembles moral behaviour, it lacks key ingredients that would warrant it being called *morally motivated* behaviour. For example, in Chapter One I argued that while the eusocial insects appear capable of performing feats of incredible self-sacrifice, this could not be labelled moral altruism because it is not morally motivated behaviour; that is, there is no conscious intent to behave altruistically. Central to

morality as it has been presented thus far, is the ability to both understand that others have minds and to form intentions based on this understanding of others' minds (theory of mind); it seems very unlikely that the eusocial insects have this capacity.

Non-human primates also demonstrate a remarkable amount of behaviour which very closely resembles forms of moral behaviour that can be found in human societies. For example, chimpanzees regularly groom each other and share their food with each other. Non human primates are also very genetically close to humans, so we are further inclined to consider their behaviour more closely in terms of deciding whether or not they are able to form morally relevant intentions. It would, therefore, be interesting at this point to consider other primates to see the role - if any - that certain emotions actually do play in their behaviour.

The first thing to note is that evidence for the existence of a theory of mind in other primates is sketchy; any evidence that is produced usually can be explained in other ways that do not even require mention of a theory of mind. For example, James Rachels, in his book *Created from Animals* (1990:150) discusses an experiment carried out by the North-western University Medical School which was aimed at seeing whether or not rhesus monkeys could be considered altruistic (Masserman et al., 1964). It has also been used as a landmark case in arguing for the existence of a theory of mind in non-human animals.

To recall the details of the experiment in brief, two rhesus monkeys were put in co-joining rooms. One of them was given the choice of two chains to pull in order to receive food, one of which gave access to a greater amount of food than the other. The chain that gave the greatest amount of food, however, also delivered an electric shock to the other rhesus monkey in full view of the monkey pulling the chains. The aim of the experiment was to see whether the observation of (let's say) monkey "A" being hurt as a result of monkey "B's" actions in securing food would deter monkey B from attempting to secure food a second time. After allowing the shock to happen once, it was found that in the majority of cases thereafter, the chain puller (monkey

"B") would choose the chain that gave it access to the lesser amount of food, rather than the chain which administered shock to monkey "A." In an extreme case, one monkey almost starved itself for 12 days before pulling the chains at all. It was also found, interestingly enough, that the instance of monkeys refusing to pull the chains that delivered shocks was increased if the monkey had spent any time previously with the monkey undergoing the shocks. It was also increased if the chain – puller had experienced the shocks itself. Researchers concluded that that most rhesus monkeys would choose to go hungry, rather that causing one of their conspecifics pain by attempting to attain food.

This example has been used not only as an example of moral altruism in non human animals, but also as an indication of the rhesus monkey's capacity for empathy. It is assumed in this case that the reason that the monkeys refused to pull the chains is because they were aware of the pain they were causing in their conspecifics and on the basis of an empathetic reaction, attempted to end it. The fact that the incidence of shocks diminished even further when the monkeys were familiar with each other was used as further proof that these primates have a theory of mind; not only do they appear to feel empathy, but they are also capable of sympathetic "feelings" toward others that they "know".

But are we actually able to say this conclusively? After all, there are alternative possible and plausible explanations for such behaviour. For example, it could be argued that perhaps the monkey was merely frightened by what it saw without any particular comprehension of the given situation or any understanding of what was happening in the minds of the monkey receiving the shocks. Moreover, it should also be noted that not all of the monkeys in the particular experiment responded in such a way – some took their food regardless of what was going on. In a comprehensive article addressing this issue, C.M. Heyes gives an overview of some of the prominent literature and concludes as follows;

> Unlike in research on the development of theory of mind in childhood... no substantial progress has been made through this work with nonhuman primates. A survey of empirical studies of imitation, self-recognition, social relationships, deception, role-taking and perspective-taking suggests that in every case where nonhuman primate behaviour has been interpreted as a sign of theory of mind, it could instead have occurred by chance or as a product of non-mentalistic processes such as associative learning or inferences based on non-metal categories (Heyes, 1998: 101).

The findings, as this quote suggests are, of course, not conclusive. For the purposes of this work, however, they do not need to be. As emphasized throughout this thesis, it is extremely likely that other animals do possess varying degrees of the same or similar neurological functioning as humans. What becomes clear from many of the examples offered such as some of those discussed here, is that they are not as obvious or perhaps do not play as significant a role in the lives of the animals in question. While Kanzi the chimpanzee may indeed be able to communicate with humans, it is a capacity that was developed outside of his natural habitat and also, more importantly, is considered to be an exceptional case: his foster mother – who the researchers had originally tried to teach - was not able to communicate in a like manner.

In sum, there is often something which differentiates like behaviour between humans and other animals with regards to morality; this "something", I conclude, is the fact that they do not have – or do not use – the same type of biological traits that humans have. While reciprocal altruism seems to be prevalent in chimpanzee groups, for example, altruistic actions performed with no expectation of return are rare. Reciprocal altruism, I argued in the previous section, is not the same thing as moral altruism. In fact, in one study by a group of some of the most eminent names in primatology, it was concluded that chimpanzees, our closest living relatives alongside the bonobos, manifest no concern for the well being of unrelated chimpanzees at all, further suggesting that empathy and its constituent capacities are less developed in chimpanzees (Silk et al., 2005: 1359). Jeremy Kagan also supports the argument that other primates are not able to experience central morally relevant emotions, such as,

for example, guilt. This, he claims, is because they do not appear to have the cognitive capacity to understand consequences, to remember past cases and draw inferences from these cases, or to apply rules or evaluate actions. In his own words:

> The emotion of guilt, which is central to human morality, cannot occur in any primate other than humans because guilt requires the agent to know that a voluntary act has hurt another and the behaviour could have been suppressed. Guilt requires the ability to infer the stat of another, to reflect on a past action, to compare the products of that reflection with an acquired standard, to realize that a particular action that violated a standard could have been inhibited, and, finally, to evaluate the self's virtue as a consequence of that violation. Guilt is not a possible state for chimps. Indeed, these animals are unable to make much simpler inferences; for example, they do not assume that a blindfolded adult can not see their actions (Kagan, 2000: 48). [114]

In conclusion, then, while other primates appear to have social rules, these rules do not seem to qualify as being moral rules: instances of moral-like behaviour, for example, can be more readily explained as being self-serving primarily (such as in the case of reciprocal altruism). That this is the case can be attributed to what evidence suggests is a lack of ability to form "other regarding" intentions that characterise many human moral rules. This is due to the fact that they do not seem to be able to conceive of the mind-states of their conspecifics.

The study of other animals also sheds light on our own development, as it allows us to draw conclusions based on differences in behaviour between humans and other animals and the differences in mechanisms that produce that behaviour. In this case, we could argue that one of the central characteristics which enables humans to develop morally relevant intentions is the ability to be able to *consider* the wants and needs of others. This is supported by the fact that other primates do not seem to be able to give such consideration to others, which might explain why it is that their

[114] Kagan acknowledges that his findings are based on research taken from Povinelli & Eddy (1996).

rules do not resemble the moral rules of human groups in that they are not generally other-regarding.

Summary

> ***Good and Evil are names that signify our appetites and aversions, which in different tempers, customs, and doctrines of men are different (Hobbes, 1651: ch 5).***

Recent studies of the emotions have provided significant contributions to the consideration of connections between morality and human biology. To begin with, they underline the important roles that different biological capacities play in our ability to behave, reflect or be motivated in a morally relevant way. In particular, emotions emerge as being central to the generation of concern and care for others. In this Part of the thesis I have suggested that the emotions themselves appear to have a neurological – and thus biological – basis: different parts of the brain seem responsible for the generation of different emotions, for example. Impairment to parts of the brain generally activated in experiencing certain morally relevant reportedly reduces ability to, for example, distinguish the moral from the ordinary rule. This, in particular, appears to be the case with various psychopaths that have been studied which suggests that the ability to experience certain emotions is central to one's ability to form moral intentions and to understand moral concepts. This, in turn, suggests that morality is ultimately a product of human biological mechanisms.

The findings also aid in filling in some of the explanatory gaps encountered thus far in my account of morality. For example, one of the major puzzles arising from a purely prosocial account of morality concerns the issue of how humans have come to be concerned for non-related humans and even other species, as pointed out at the beginning of this section. I have argued here that the same capacities that enhance our biological fitness in terms of securing connections with kin are also central in securing emotionally based connections with others. The existence of such capacities thus also serves to explain why some of our moral behaviour departs from behaviour

that can be explained solely or even partially in terms of its contribution to fitness enhancement. The vegetarian's moral stance is difficult to explain if one takes the view that moral rules are merely social facilitators, since in some environments vegetarianism is likely to cause social marginalisation rather than inclusion. The fact that we are able to empathise with others beyond our group bridges these explanatory gaps significantly.

More importantly, however, the existence of emotions accounts in part for what has been referred to as the "moral ought"; that is, a call to action (or to refrain from action) on the basis of it being the right (or wrong) thing to do where the "right" and "wrong" require no further justification. I might understand that causing harm to somebody is unpleasant for them; but when I see it happen, an ensuing feeling of sympathy or empathy may make it a personally negative emotional experience for me. Consequently, I not only understand that the action is wrong, I also *feel* that it is wrong. Such an explanation goes part of the way towards explaining Joyce's moral "Oomph" – that is to say, the conviction that some things just *are* right or wrong, and this in spite of what we may have been told to the contrary.

In sum, then, it seems highly likely that human emotions are neurological adaptations that evolved because of the survival advantages they afforded our ancestors. It seems reasonable to postulate that some of these advantages included the attachments they enabled between caretakers and their offspring, for example. They also seem to have contributed significantly to the process of extensive socialisation of humans via facilitating extensive cooperation between non-kin as well, and enabling the development and maintenance of social bonds. These bonds, in turn, provide adaptive advantages to human beings – at least for some of the time.

Morality is one of the bi-products of these adaptations, and likewise, has served adaptive-like ends. The fact that human emotions may not have been selected for this "exapted" function does not detract from the argument that morality is inextricably linked to human biology. Nor does the fact that moral rules are not always employed

for adaptive ends detract from the argument. Without some of the biological capacities discussed so far, morality as we know it could not have developed. Morality as such has not escaped Wilson's leash in terms of its origins.

I suggest, therefore, that David Hume was right to insist on the importance of the emotions in explaining morality. Where he was mistaken, however, was in granting them omnipotence in explaining moral motivation. Reason, he argued, is implicated, but is not central to morality. As he famously put it, "Reason is, and ought only to be the slave of the passions, and can never pretend to any other office than to serve and obey them" (1994 [1739-40]):119). In the section to come, this view will be challenged. For while it is undeniable that emotions play a vital role in the generation of moral intentions, I will argue that reason also has a significant role to play.

Chapter 9: The role of reason as motivator

> ***Not only does morality constrain our choices and actions, but it does so in an impartial way, reflecting the equal rationality of the persons subject to constraint....The foundational crisis of morality is thus resolved by exhibiting the rationality of our compliance with mutual, rationally agreed constraints on the pursuit of our desires, aims, and interests. Although bereft of a basis in objective values or an objectively purposive order, and confronted by a more fundamental mode of justification, morality survives by incorporating itself into that mode. Moral considerations have the same status, and the same role in explaining behaviour, as the other reasons acknowledged by a rational deliberator. We are left with a unified account of justification, in which an agent's choices and actions are evaluated in relation to his preferences – to the concerns that are constitutive of his sense of self. But since morality binds the agent independently of the particular content of his preferences, it has the prescriptive grip with which the Christian and Kantian views have invested it (Gauthier, 1998:125).***

Introduction

A significant amount of time has been spent emphasising the role our emotions play in motivating us to uphold moral principles. I have argued that an important part of this role lies in their contribution to generating the belief that moral principles are categorically binding. This focus has been principally a response to one of the major puzzles presented in this thesis, namely, how it is that we come to believe that moral principles are categorically binding in the first place. Our affective system is not, however, the only source of either this belief or the morals principles themselves. It often works hand in hand with – or is sometimes even preceded by - reasoned argument.

In this chapter, the role of reason in morally relevant matters will be explored. To begin with, the various ways in which reason might be employed to make moral choices will be discussed. Included in this discussion will be the observation that reasoning can help determine how it is that we are going to apply existing moral norms, as well as whether or not the moral rules are still relevant in the creation of new moral norms.

These issues, however, are not so much about moral motivation as they are about formulating and applying moral rules. In this section, I will also argue that while emotions are at the heart of moral motivation in the sense that they provide the "clout" of morality, it is nonetheless possible to become morally motivated consequent to a process of reasoning alone. For example, someone's reasons for upholding a particular moral stance may stem directly from what they feel emotionally propelled to do. It is possible, however, that they may reason themselves out of what they feel emotionally compelled to do in order to do what they consider to be their moral duty, for example. I will elaborate this point with reference to arguments presented by Jonathon Haidt, Neil Levy and Peter Singer.

Finally, the idea of moral responsibility and moral identity will be explored in this chapter. Firstly, moral responsibility will be discussed to highlight the capacities usually required for one to be considered a moral agent. Secondly, while not directly linked to reason and reflection, I will discuss moral identity since it seems to accord often with a rational process of deciding how it is that one wishes to be perceived. A desire to establish a particular moral identity can thus also be considered to be a source of moral motivation.

In this chapter, then, I will further my argument that morality is the bi-product of various biological capacities. Importantly, however, highlighting the role that reason has to play in generating moral concepts will reinforce my claim that morality cannot be considered an adaptation. As stated in Part One, an adaptation is a distinct biological trait that can be passed on from genome to genome. The core features of morality cannot be explained with reference to a single biological trait, but rather with reference to many. Morality cannot, then, be considered a biological adaptation itself. At the end of this chapter, I will re-state these arguments in the context of Richard Joyce's postulate that there might be such a thing as a singular adaptation which accounts for morality.

9:1 Reasons and Reasoning

In Part One I argued that in order to behave in what is considered a morally relevant way one has to *intend* to do so. To do this would obviously require the ability to form, think and reason about one's intentions in the first place. Indeed, one of the features which I claim distinguishes moral altruism from the altruism of the bee or the ant is that the insect seems to be responding to biological cues, where as the human is aware of possibilities available and can make intentioned choices amongst them. These choices will often be based on a reasoning process in which one will firstly consider the options, the consequences of each option, and then decide which might best help one attain one's aim the best (Ayala, 1998).

Reasons and reasoning are also central to judging the moral *status* of certain actions. For example, moral injunctions against stealing are very common cross-culturally. Deciding whether or not something counts as stealing, or even judging the severity of the stealing incident, however, will require a consideration of the particular circumstance. For instance, one might be much more likely to consider stealing a loaf of bread in order to prevent one's children from starving to death less immoral than stealing bread just for the thrill such actions might elicit. These are just a few examples of the sorts of occasions on which we are likely to specifically use reason in moral decision making. It is what Jonathon Haidt, (whose position will be discussed presently) refers to as the process of "moral reasoning" which he defines as "...conscious mental activity that consists of transforming given information about people in order to reach a moral judgment" (Haidt, 2001: 819).[115]

In general, life throws up a continual stream of different situations which call upon such reasoning processes. Above I mentioned the problem of judging particular actions according to the circumstances which lead to their performance. Sometimes, however, this process can become quite difficult, particularly when conflicting or

[115] Haidt claims that he is basing this definition on the work of Galotti (1989).

novel circumstances arise; indeed, some of the more contentious of modern moral dilemmas hinge on decisions about the application of certain moral rules to situations which do not seem clear-cut. Euthanasia, abortion and stem-cell research, for example are issues that rouse much debate about, amongst other things, the application of moral injunctions against killing. In the case of abortion, for example, significant debate hangs on the decision as to whether a foetus could be considered a person or not. Deciding the issue in order to make a moral judgement will require a process of reasoning and reflection about what, in this case, constitutes "a person".

The points made so far in this section have been principally focussed on the importance of moral reasoning in the moral decision making process – that is to say, they have been concerned with the way in which we use reason to *apply* moral rules to a range of changing circumstances. What is not so clear, however, is whether or not reason has a central role in *motivating* us to adopt and apply a particular moral rule in the first place. I will now consider this question.

9:2 Reason or Emotion: A genuine tug of war?

A recurrent theme in Ethics concerns the role of both reason and emotion in the formation of moral judgements. This could be characterised as a sort of Kantian/Humean "tug of war", a struggle which epitomizes a debate that has divided philosophers for centuries. Hume, as we have seen, argued for the primacy of the emotions as moral motivators. He did not, however, deny that reason has a role to play in moral matters:

> ...in order to pave the way for such a sentiment [i.e. a sentiment that forms the basis of a moral judgement] and give a proper discernment of its object, it is often necessary...that much reasoning should precede, that nice distinctions be made, just conclusions drawn, distant comparisons formed, complicated relations examined, and general facts fixed and ascertained (Hume, 1752).[116]

[116] As quoted in James Rachels (1991, 432). The insertion in this quote is Rachels' insertion.

Here Hume refers to the process of reasoning about circumstances relevant to our moral decision-making, much as I have done in the preceding paragraphs: it says nothing about motivation, however. For Hume, it is the emotions which provide the moral motivation, since it is these that "affect us"; reason, according to Hume, cannot do this. Kant, on the other hand, denied that this was the case, claiming rather that it is a response to moral duty which renders an act morally relevant in the first place and it is reason, not emotions which leads us to the *knowledge* of the moral law – and hence our duty.

There is little need to enter too far into a discussion of either of these individual positions in great detail, particularly that of Kant which involves a complicated metaphysic which has little direct relevance to this thesis. One point that is relevant, however, is a common criticism of Kant's approach. This is the claim that in focusing on duty and reason we remove ourselves from what for many is key to moral motivation; a feeling of care for another, which, as it has been argued here, generates the desire to help someone. This, in fact, is part of Hume's reasoning for considering human emotions as the relevant source of moral motivation.

As stated above, the question of moral motivation is one that has been debated for centuries. More recently, Jonathon Haidt, whom we encountered briefly in the discussion of morally relevant emotions, has joined the debate, providing a surge of support in favour of the human affective system as a prime mover in the making of and acting upon moral judgements. He proposes what he terms the "social intuitionist" model where "moral intuitions" are defined as "...the sudden appearance in consciousness of a moral judgment, including an affective valence (good-bad, like-dislike), without any conscious awareness of having gone through steps of searching, weighing evidence, or inferring a conclusion" (Haidt, 2001: 819). What needs to be noted here is that Haidt is not making a straight reason/emotion dichotomy, since for him the term "intuitions" does not denote emotions only. He does, however, focus significantly on emotional response, and since this thesis too has been focused on exploring emotions, Haidt's points are highly relevant here.

Haidt's main argument is that reasoning, while relevant to moral judgements, is not often the process by which we form moral judgments. Reasoning, he claims, is usually a process which (if it occurs at all) comes *after* the judgement as an "ex post facto process" and serves to rationalise what one has already concluded.[117] He illustrates his point with a number of arguments and examples, sourced from a wide range of independent studies. Of relevance to this thesis in particular, however, are his arguments which focus on incest. In sum, he claims that while people tend to give rational explanations for the incest taboo (much the same as I did in Part One of this thesis) it is actually an emotional reaction to incest which explains why we come to believe that it is wrong and are thus motivated to avoid it; according to Haidt, the explanations come *after* the reaction as we attempt to rationalize our emotional reactions to explain them more cogently - or to legitimize them - to others. To illustrate, he considers a one-off consensual sexual encounter between an adult brother and sister in which contraceptive precautions are taken, and there are no subsequent ill feelings. Here is a scenario in which most of the rationalised arguments for the "wrongness" of incest - some of which I suggested myself in Part One - do not seem to apply. And yet, he argues, we still feel that something is morally wrong about this scenario. This "feeling", he argues, is the product of an immediate emotionally based intuition that incest is wrong. [118] In his own words,

> In the social intuitionist model, one feels a quick flash of revulsion at the thought of incest and one knows intuitively that something is wrong. Then, when faced with a social demand for a verbal justification, one becomes a lawyer trying to build a case rather than a judge searching for the truth (Haidt, 2004: 814).

[117] In this he is in accord with Freud (1900), who made a similar point.

[118] This explanation accords quite well with the account given of biological mechanisms discussed in Part One which inhibit the practice of incest. While the disinterest or even repulsion fostered by the mechanisms was concluded to be too weak to account for the social taboos, this was mainly due to the fact that incestuous scenarios appeal to much stronger emotional reactions in us – such as those in which children are involved, or in which there is not consent.

To further support his claims, Haidt discusses the way people seem to flounder for justifications of their moral judgements when the case at hand appears to "slip between the cracks," such as in his example of the incestuous encounter between an adult-brother and sister. For Haidt, the frequency of this response to in-depth questioning about our reasons – which he elsewhere refers to as a state of being "morally dumbfounded"(Haidt et al. 2000) – is evidence that moral reasoning usually occurs after the judgement has been made as part of a process of rationalisation.

Haidt's arguments fit in well with the conclusions drawn in this thesis so far. While this, of course, is no reason on its own to accept them, the explanatory power that they have, *is* good reason. In particular, it completes the explanation of moral motivation given earlier in this part of the thesis where I concluded, for example, that moral rules appear to differ from other rules because of our belief that they are somehow intrinsically right or wrong. This belief, in turn, was explained as the product of either the positive or negative experiences that certain situations engender. These experiences often *feel* intrinsically right or wrong in many cases, but often for reasons that we are at a loss to explain – we are, indeed, often "morally dumbfounded" when a situation arises in which we must explain them. That we later justify these reactions in terms of them somehow being *morally* right or wrong (thereby implying that they are, as such, categorically binding) is well explained by the claim that we are simply rationalizing or "objectifying" the fact that we emphatically do or don't like a particular situation and emphatically do or don't want it to continue.

Bruce Waller is another philosopher who challenges the assumption that morality is always dependent on rational reflection. Using the example of rescuing a child who is about to fall off a cliff, Waller demonstrates how it is possible that an act be considered morally motivated without it having been preceded by a series of considerations about what should be done in the situation. In the case at hand, in fact, deliberation as to whether or why one ought to save the child would seem, on the contrary, to be quite *im*moral. The person standing by who instantly reaches out to

save the child without such deliberation may say in hindsight that they acted to save the child, but at the time, appeared to act without any such deliberation; in fact such deliberation would usually have been fatal at the time of the event. Waller refers to this as "non reflective...*intentional* moral behaviour" (Waller, 1997:343). He claims that talk about acting upon reasons can be misleading in its implication that moral behaviour is always based on rational reflection. For Waller, it is the original intention that counts in pinpointing the source of moral motivation, and this is not always reason based.

There are different ways of responding to this point. One might, for example, argue that Waller's example does not really prove what he sets out to prove. While it is true that the rescuer may not have paused to think about what would be the correct course of action, it is also true that the rescuer, as an adult, has presumably had a lifetime of experience with the type of moral reasoning that would lead to such a response. Many moral norms are so firmly entrenched in us that it is not surprising that we do not deliberate each time we behave in a moral manner. A situation as simple as the one given, that is, "child in danger – need to help", could be processed in a microsecond based on our prior knowledge that that is what we ought to do: deliberation - no, but indirect application of reason - yes. Alternatively, Waller's claims can be used as further support for Haidt's argument that we act on "intuitions" which are instantaneous and about which we reflect later.

What this scenario highlights is the difficulty involved in isolating the prime source of motivation in the making of moral judgements. This is not a problem. For while I have argued that emotional responses are at the core of much that motivates us morally, I nevertheless maintain that reason also can take this place at times. Indeed it should be noted that Jonathan Haidt himself does not rule out the role of reason in motivating moral behaviour and judgements either. He correctly claims, for instance, that people often use moral reasoning to persuade others to adopt their moral positions. That is, moral reasoning is often used in a *social* context in which moral positions are being discussed. What Haidt disputes, however, is the idea that moral

reasoning has a significant causal role in our own *private* moral deliberations and judgements. While he does not say that it *never* occurs he nevertheless maintains that it is rare. In his own words, "People engage in moral reasoning not so much to figure things out for themselves in private but to influence others" (Haidt, 2004: 284). In fact, he narrows the occurrence of private moral reasoning down to those actively involved in the domain of philosophy, mentioning Peter Singer's arguments, moreover, as examples of the kind of "very disturbing conclusions" which result from using reason alone to motivate moral judgements (Haidt, 2001: 829). I contend that Haidt underestimates the role reason plays as a private moral motivator. By way of illustration, I will discuss one of Singer's perhaps less "disturbing conclusions" – that we should not kill animals or food.

Singer's position (sketched in more detail in Chapter 7) is that it is wrong to kill animals for food based on an argument that includes animals other than humans in the group of organisms which ought not to be harmed because of their "sentience." That is to say, he argues that if we claim that the "wrongness" of causing humans unnecessary suffering derives from their ability to feel pain, then we should also apply this moral reasoning to other animals which are also capable of feeling pain. While it is true that the moral rule – "one ought not to cause sentient beings to suffer unnecessarily" – is already established, the extension of this to other animals is based on a process of reasoning. It in turn creates a new moral rule; that it is wrong to kill non-human animals. The motivation in this case, however, appears to stem from a rational, rather than an emotional basis since in extending the moral rule, I am doing so in response to reason-based persuasion. Reason, then, is implicated directly in both the making of moral judgements, and importantly, generating the motivation required for acting in accordance with them. Neil Levy agrees:

> Why is it that the circle of moral concern has grown over the past two hundred years, so that many people formerly excluded from it, or given little moral weight, have been included as full members of the moral community: people of all races, homosexuals, women, increasingly even animals? These changes have been too swift and too widespread to

> reflect genetic mutations. Instead, they are much more plausibly seen to be the upshot of moral *argument* (Levy 2004: 84).

While of course Singer *is* himself a professional philosopher, and hence he falls under the limited domain of "private moral reasoners" delineated by Haidt, it seems somewhat exaggerated to suggest that this form of reasoning is such a rarity. It does not seem unreasonable to suggest, for instance, that a person considering Singer's arguments will either accept or reject his moral reasoning by engaging the very same reasoning skills that Singer has used to form the arguments *in the first place.* Perhaps this process thereby renders such people "philosophers" themselves. As mentioned in section 9:1, however, the rapidity of changes in world technology, combined with the increased problems of limited resources and over population, for example, have entailed that philosophers and non-philosophers alike are increasingly being faced with moral quandaries of a rich and diverse nature. These, moreover, may and often do entail the rational reconsideration of long-standing moral and emotional commitments. So while I agree with Haidt's emphasis on the role that the human affective system has to play in forming moral judgements, I think it is unreasonable to suggest that it is only a very small percentage of the population that engages in the type of private moral reasoning that is capable of affecting their moral judgement. .

Singer, for example, points to another important role that reason has to play with regards to morality; this is the role it plays in helping us to *defend* our values – or extend them - to others. According to Singer, we often attempt to do this by justifying them in terms of "...some broader impartial principle" (1981: 109). I have also suggested this. If we cannot do this, our principles simply remain personal preferences that "...from the collective point of view, should receive no more weight than other preferences" (1981:110). So even though we sometimes use moral concepts to express the strength of *our* convictions specifically (although perhaps not consciously) we generally do not want them to be perceived as being subjective, since

as such, we might lose a lot of the power we have in extending our convictions to others.[119]

Reason-based considerations often come into play not only in the objectification of our moral principles, but also in the determination of dilemmas that arise between what one considers to be one's *moral duty* towards others, and one's own desires for oneself. In other words, we use a process of reasoning to motivate ourselves when we otherwise might not feel motivated. For example, sometimes it might appear appropriate to forgo one's personal desires or inclinations in order to behave in what one believes (based on a process of reasoning) is a morally correct way.[120] This requires the ability to reason in favour of an alleged ascendancy of what we feel to be our moral duty over our own personal preference and to be thereby motivated to forgo the latter for the former. A good example of how this might occur could be the oft-used case of the crying baby in the war zone. In this scenario, a group of people are huddled in a bunker trying to hide from the approaching enemy. Suddenly the baby of one of those hiding starts crying. The dilemma consists of either choosing to suffocate one's own baby in order to save everybody, or allowing the baby to continue to cry, in which case everybody would die. It is reasonable to imagine that the mother's personal desire would be to save her baby. Reason, however, might be able to move her to do what would perhaps be considered her moral duty; i.e. saving the other people.

That there is such a potential for conflict between the notion of duty and emotionally charged preference is also illustrated quite well by Phillipa Foot's famous trolley car scenario (Foot, 1967). In one of the variations of this scenario, a trolley car is

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[119] Singer goes on to use this argument as the basis for his Utilitarianism, claiming that if we are being rational, we will come to see that our interests are not any more important than others' interests, and that as such we should give them equal consideration. This, he argues, is "...a uniquely rational basis for ethical decision-making" (1981:110). While I will not be making any normative claims in this thesis about what we "ought to do" as Singer has done here, what I retain nonetheless from Singer's argument is the process whereby we might use reasoning to both arrive at moral rules, and, importantly, the way we often use our reason to extend our "preferences" to others.

[120] Peter Woolcock also makes this point (2000:44).

careening out of control towards a crossroads which present two alternatives for continuation. If one leaves the trolley car to follow its natural course, it will kill five people who are in its path. If, however, somebody changes its course, the trolley will kill one person only. The difference is that the person who does this then becomes responsible for the death of the person in doing so. The difficulty here is that the idea of actually killing a person is morally repugnant to many people. If you were a Utilitarian, for example, you would be morally obliged to do it nonetheless since otherwise five people will be killed instead of one.[121] Such scenarios can be endlessly multiplied to illustrate the difficulty that is presented when one pits one's emotionally fuelled desires or inclinations against what one might rationally think is one's moral duty.

As mentioned above, however, separating reason and emotion is not as clear cut an issue as it might appear on first considering these examples. For in most situations, reason and emotion do appear to be very much interdependent. For example, in the trolley car example, the belief that what we ought to do is save five people might be based partially on feelings of empathy for those five people, rather than being just a pure, reason-based decision. It might simply be less emotionally charged than the feelings that might arise from feeling personally responsible for killing somebody. One might argue, then, that in the cases given above, the ultimate motivation for acting is, in fact, emotional since the rational arguments themselves are based on the extension of one's empathetic considerations to others; the "expanding of the circle".[122]

Also, while a sense of moral duty might not accord with what we feel most deeply about, emotions may still come into play in the form of shame or guilt if we transgress what we have reasoned is our duty. For example, as children we are often taught what constitutes our moral duties; that is to say, we are taught what it is that

[121] Of course, this is one of the main criticisms levelled at Utilitarianism as well; that is, that it seems too rational and calculating in its approach, weighing up numbers and outcomes at the expense of the individual circumstance and the emotional basis certain moral decisions carry with them.
[122] This is a variation of W.E.H Lecky's (1869) famous expression, from which Peter Singer derived the title of his book, *The expanding circle* (1981).

we ought to do. Later on in life, the moral rules may be reinforced by our emotional artillery such as when we transgress a moral rule and subsequently feel guilt about what we are do. This may be the result of specific self assessment or it may just arise without our evoking it. In any case, these emotions arise from thinking about our actions and ourselves as perpetrators of these actions.

Emotional reaction to a situation may also follow a decision that something is right or wrong based primarily on reasoned argument in its favour. As Neil Levy expresses the same argument, "...sentiment follows conviction: it does not always lead it" (Levy 2004: 84). In the case of vegetarianism, for example, we may not have thought about the sentience of other animals. On rational reflection of Singer's argument, we may accept his reasons for not eating other animals and become committed vegetarians. This reasoning may be partially based on feelings of sympathy or empathy for other animals who we now consider to be capable of feeling pain, like humans for whose suffering we feel empathy.

Finally, emotions may be deliberately used to bolster one's rational argument. This is also one of Haidt's points. He claims that it is this, moreover, rather than the logic of argument, which has the most power to persuade people (Haidt, 2001: 819). Such emotional persuasion or appeal is one that is often used, for example in the campaigns of anti-abortionists and animal liberationists. Pictures of aborted foetuses and mutilated animals are designed to provoke the kinds of emotional distress that are so effective in moral persuasion of this type.

While these scenarios might be considered revelatory in terms of what drives our moral motivation, however, as stated above they do not require a decision as to whether it is reason or emotion which is behind a particular moral decision; this thesis is not arguing for the legitimacy of reason over emotion in terms of either one being the unique source of moral motivation. Indeed it cannot, since one of the ramifications of my arguments is that moral rules have no ultimate objective truth, but are rather dependent on the beliefs, needs and desires of those that uphold it.

Arguing that either reason or emotion is the more legitimate source of moral motivation would be to suggest that there is some kind of external standard applicable to morality.

One thing we can do, however, is offer theories about which came first in the story of the development of morality. What I have argued so far is that moral concepts spring primarily from the ability to experience emotions and the motivation that these emotional experiences provide. The argument goes further than this, though. It has also been argued that the very *belief* that there is moral right and wrong often stems from these emotional experiences. In Section 2:1 I also concluded that while we do not have definitive answers regarding the adaptive function of many traits, some are considered more plausible than others. There is very good reason, for example, to maintain that emotions such as empathy have an adaptive role in assuring the bonding process between caretaker and offspring. These same biological mechanisms that regulate emotional responses seem to also be widely present in the animal kingdom, suggesting that they most likely evolved in a common ancestor that predates humans; that is, to use the appropriate terminology, they are "homologous traits". In terms of a time frame, then, it is reasonable to suggest that the emotions have priority since advanced levels of reasoning appears to be a human phenomenon, and as such, is much more recent. The fact that reasoning contributes to the passage from "moral intuition" to moral rule, could be the key to explaining why humans have moral *rules* in the first place. That other primates do not appear to have either advanced reasoning ability or advanced moral systems (indeed- arguably *any* moral systems) further suggests that there is a connection between both reason and emotion in the formation of moral rules.

Before leaving this section I will highlight the interconnectedness of reason and emotion one more time by addressing a common criticism of the argument that emotions and desires are not strong enough to explain the categorical force of morality. Richard Joyce expresses this criticism quite well:

> ...we have evolved an innate disposition in favour of certain types of action, against certain others. This disposition is not merely the development of appropriate *emotions* or *desires*: it's not merely that I *want* to look after my children – but I feel that I *ought* to. I feel, if you will, that there is a *requirement* upon me to look after my children; that I *must*. Desires, after all, are unreliable things: after a long day, a parent might not particularly *want* to care for the children...Morality as a system of categorical imperatives compensates for the limitations of desire (Joyce, 2000: 715).

Here I argue that our emotions may still explain why we feel that we ought to look after our children. When, however, we do not have this desire for one reason or another, human rationality might step in to fill in the gaps that our flagging emotions may at times leave open. I might, for example, be experiencing anger towards my children that takes away any desire I have to look after them. In this case, the anger could even eclipse the strength of our emotional attachment to them. Reflection, however, will often serve as a reminder of what we value, especially at times when our values are undermined is such a way. So while we still have the "ought," it is being temporarily derived from another source, however.

In sum, then it seems fairly clear that both reasoning and emotional capacity are central motifs in the explanation of not only moral motivation, but also the development of morality in the first place. John Teehan agrees, claiming that since both increased intelligence and the evolution of more complex emotional capacity most plausibly were evolutionary responses to the requirements of social living, it seems foolish to pit them as being "...the eternal combatants of most dualistic philosophies...". Rather, they should be considered as "partners" in the effort to manage human sociality (Teehan, 2003: 52). As partners, moreover, they serve to explain how it is that we come to extend our own personal emotionally based reactions to certain situations to others via the moral "ought". As such this explanation provides a plausible alternative to Richard Joyce's moral sense as an explanation of how this process might occur. In Peter Singer's words, "Reasoning is inherently expansionist. It seeks universal application" (1981:99).

9:3 Moral responsibility

While it is true that moral deliberation is not *always* central to our moral decisions, as Waller points out and as I have argued, moral deliberation is nonetheless often at the core of some of the moral decisions that we make as adults. Whether it be simply deciding when and where applying a particular moral tenet might be appropriate, or whether it be deciding whether or not the moral tenet itself is appropriate. In fact, we generally don't tend to consider someone even capable of being morally responsible if for some reason or another they are unable to engage in moral deliberation. This, in itself, is a strong argument for the central role reason maintains in motivating morality. For example, we are more likely to exempt somebody from moral responsibility if they can be shown to have had no choice in the way they behaved due to their inability to reason effectively. Children, for example, are not considered to be morally responsible because of their inability to understand moral concepts, amongst other things. This, however, is not so much because they are considered emotionally immature, but rather because they are *intellectually* immature. In the words of Jeanette Kennett:

> While young children display a proto moral awareness ... they are not yet full moral agents. It is at least in part their undeveloped capacity for rational deliberation and self-control that is critical in exempting them from the moral responsibility that attaches to full moral agents. (Kennett 2006: 76)

People under the influence of drugs or alcohol, or people with certain mental disabilities which impede their reasoning ability are also generally considered to be less responsible for their actions than those exercising full rational capacity, as mentioned previously.

Interestingly, tests conducted on patients suffering damage to the VMPC (Ventromedial prefrontal cortex) have shown that while they score poorly in moral decision making involving empathetic responses, they are able to make the

calculations requisite for making a utilitarian decision in the case of moral dilemma (Talmi and Frith, 2007). In one experiment conducted, using the infamous runaway trolley case, it was discovered that in general the patient with VMPC damage was much more likely to push someone in front of the train to save the five people than the control participants. This has led researchers to speculate that damage to the VMPC affects the moral decision making only by removing the emotional component of the decision, but that this does not impede the agent's ability to decide on a particular course of action according to moral considerations (Talmi and Frith, 2007: 866).

What needs to be considered here, however, is whether or not a decision made which does not take into account the welfare of others, but is rather just a learned response could be considered morally *intended*. The conclusions of this thesis suggests not. Rather, it seems that moral rules become simply social rules to the agent in question. The psychopath, for example, may have learned what is and is not morally appropriate in their society, and may be able to apply these rules without too much difficulty but studies of psychopathy suggest that psychopaths are *not* able to make the distinction between conventional and moral reasons when it comes to considering rules (Blair, 1995, 1997; Kennett and Fine, 2008). In the words of Kennett and Fine:

> Their poor performance on the moral-conventional distinction task and their incompetence in the use of evaluative language, suggests that psychopaths deviate so significantly from the folk that it is reasonable, on empiric grounds, to conclude that they do not have mastery of the relevant moral concepts (2008:219).

That is to say, they are not acting in response to rules that they consider to be morally right or wrong, but rather in response to a set of general rules that they know they are supposed to obey. This would seem to eliminate them from the class of "moral agents" to whom we can attribute moral responsibility.

This is a contentious point and while there is not the space or need here to enter the discussion more fully, a few relevant points should be mentioned. To begin with, it seems reasonable (based on the arguments presented in this thesis) to conclude that psychopaths cannot be considered morally responsible because they do not act with *moral intent.* This was also the reason that the eusocial insects are also not considered to be morally responsible agents. One might reply, however, that according to the arguments in this thesis, moral intent in humans also derives from biological adaptations over which (in reality) we have little control. Consequently, we might think we are intending to be morally altruistic, when in fact we are just appeasing the negative experiences seeing somebody else suffering elicits in us. In other words, morality is merely instrumental to self-serving ends. This would seem, in the words of Robert Trivers, to "...take the altruism out of altruism" (Trivers, 1971:35).

This recalls a similar, traditional argument which is often pitted at altruism in general. According to this argument, it is not possible to act without self interest or expectation of some kind of personal gain. In response, we might point to altruistic acts which do not entail any chance of overt reciprocation, the recipient of one's favours being ignorant of their benefactor. Peter Singer uses the example of giving blood as being an act of non-reciprocal, moral altruism, as testified by 98% of donors surveyed (Singer, 1981:133). It is possible, however, to judge even this as a selfish act of self-gratification. For while I receive no materialistic return for this act, I am nonetheless rewarded by the "warm, fuzzy feeling" that I experience at the thought of my fantastic self sacrifice. Bringing the argument back to the one I commenced in the previous paragraph, I might claim that I am not sacrificing myself in any way. Instead, I am relieving unpleasant feelings of guilt or empathy that sick people in need of blood transfusions might produce in me. In giving blood, then, I am thereby satisfying my own selfishly based desires to experience pleasure or to avoid pain and I am not behaving altruistically at all. This recalls Ghiselin's famous, somewhat eerie confirmation of this point;

> No hint of genuine charity ameliorates our vision of society, once sentimentalism has been laid aside. What passes for cooperation turns out to be a mixture of opportunism and

> exploitation...Given a full chance to act in his own interest, nothing but expediency will restrain [a person] from brutalizing, from maiming, from murdering – his brother, his mate, his parent, or his childe. Scratch an "altruist" and watch a "hypocrite" bleed (Ghiselin, 1974: 247).

But can altruism be so easily explained away. Is it impossible that humans can ever act in any way other than selfishly, or has a theory such as the one presented in this thesis succeeded in taking "...the altruism out of altruism" (Trivers, 1971: 35) rendering it an apparently empty term? Perhaps there is no such thing as genuine "moral altruism" at all.

This conclusion, however, seems somewhat exaggerated. To begin with, we demand too much of moral altruism. While it is true that we do consider motivation central to moral altruism, what we consider to be the right kind of motivation is not as strict as presented in the above argument. To begin with, it has been argued here that there is no ultimate "good" or "bad", but rather a system of values inspired in humans by biological features that we have evolved. Amongst these biological features are those that inspire not only physical sensations in us, but also emotional experiences. While these may not be totally under our control, we do experience them as positive or negative. Recognising that others experience these as well and the desire to inspire positive rather than negative experiences in others may provide vicarious positive emotions for us, but the important detail is that we *have* the desire to help the other person. After all, there are always other options available that would be even more directly self-serving. I could, for example, choose to spend my time reading a good book if I am seeking pleasure-centred pastime. So while I may still be gaining positively myself from the altruistic exchange, the point is that there has been altruism; a desire to provide something positive for somebody else at the cost of using one's resources in a more directly self-serving way. The intent to benefit others at a cost to oneself for the sake of enhancing the others welfare without any expectation of personal gain is at the heart of moral altruism.

In sum, then, the fact that our values spring ultimately from biological sources does not need to detract from that value. The love that one feels for one's family, the kindness one feels towards others may have biological origins, but the fact that we

feel them creates genuine value for us. This might not save morality for those who demand mind-independent facts as justificatory bases, but in terms of morality representing a value system that we have by virtue of being humans, morality still has a recognizable role to play as being the sum total of these values, desires and beliefs which form what we call moral intent. The psychopath does not appear to have the same types of beliefs or desires, nor, it would seem, does the ant or the bee (Fields, 1996: 261). I conclude, then, that neither could be considered to behave with moral intentions.

9:4 Moral identity

> Righteousness is a source of motivation. We gain by thinking that we are right, and by convincing our allies and enemies...It provides... a rationale for sinking deeper into self-deception about our motives and for justifying acts that could not otherwise be justified (Alexander, 1987: 123).

Thus far in this part of the thesis, a variety of sources of moral motivation have been explored. In this section, I will briefly touch on the idea of "moral identity" as another source of motivation. "Moral identity" is a term which refers to the way in which our personal moral codes impact on our idea of who we are; our personal identities, in other words. While it is not directly linked to reason, it has been placed in this chapter in recognition of the fact that it involves people reflecting about whom they are and attempting to shape their lives according to who they would like to be.

Sam Hardy (2006) is particularly insistent on the inclusion of moral identity as a source of moral motivation. He refers in particular to a study by Colby and Damon of people throughout history who have been particularly noteworthy for their virtue. Amongst the findings was that the specific individuals' moral codes were intricately interwoven into the way in which they perceived themselves in terms of their beliefs, desires and motivation (Colby & Damon, 1992). This entails that we might sometimes be motivated to uphold moral principles because in doing so, we are being "true to who we are" or, importantly, "who we would like to be".

This leads to the next point: moral identity is also linked to one's reputation, as discussed earlier in the section on reward and punishment. It is better socially, to be perceived as someone who is trustworthy and honest in order to be able to embark on any venture which requires some degree of cooperation with another. People are less likely to want to interact with someone in a cooperative venture if they think the person in question is dishonest. On the reverse side, certain key positions in a social group demand a moral identity which appears to be of a reasonably high calibre (whether or not it actually is in reality); teachers, policemen, political leaders and religious practitioners in particular fall into this category and are expected by the community at large to exemplify the virtuous life. This perception of our moral identity would also provide motivation to lead this kind of life (or at least appear to do so) in order that we be deemed to be worthy of the roles in question. As such then, a desire to establish a positive "moral identity" could be included in the list of sources of moral motivation.

9:5 Morality: adaptation, exaptation or neither?

I have argued that there is much evidence in favour of the contention that morality is fundamentally connected to human biology. In Part Two, I offered arguments that the capacities required to actually form moral rules - as well as enforce them - required a number of capabilities themselves the product of biological adaptation (language, learning and teaching abilities, for example). In this part of the thesis I have argue that the human affective system is instrumental in generating the "moral" aspect of these rules via its contribution to our belief that these rules are categorically binding. Categorically binding rules may also emerge from a process of reasoning, either with or without a direct emotional input. What we have then is morality emerging from a number of different sources, which might call upon different capacities at different times.

Consequently, trying to find a particular "moral adaptation" becomes very difficult. I argue, moreover, that we do not actually *need* to postulate such an entity; the explanations for the origins and nature of moral judgements given thus far in the thesis are sufficient to account for what I have identified as the fundamental aspects of morality. I have also accounted for the variability of perceptions people have of morality in terms of the variety of sources from which they derive. For example, I have argued that sometimes we make moral decisions which might be influenced by the activation of innate biological mechanisms (altruistic behaviour towards offspring); sometimes we make moral judgements because we have been socialized into believing that they are morally correct; sometimes we make moral judgements in response to strong emotional reactions we have had; and, also, sometimes reflection alone can lead us to conclude that it is better to avoid or embrace certain moral rules. Pinning all of these pathways to morality down to the operation of one specific adaptation would not do justice to all of these variable aspects of morality. Rather, explaining them as the consequence of a number of different capacities and circumstances allows for morality to be explained in a more comprehensive and – more importantly – plausible way.

Richard Joyce recognises the difficulty of pinpointing a "moral adaptation" but refuses to see in it the defeat of his postulate that morality or "moral thinking" has been biologically selected (2006: 140). He claims that morality, for instance, "...is a complicated and nebulous affair" and that "moral judgments no doubt implicate many different psychological and neural mechanisms" (2006: 141), but when he himself poses the all important question "which of the evolutionary processes...is responsible or the human moral sense?" he can only answer that "...we don't know" (2006: 140). As I have done, Joyce admits the logic of his argument is "inference to the best explanation". He nonetheless concludes that "innateness" is the best explanation for morality (2006: 137). This seems somewhat strange since himself (A) recognises the input of a number of implicated biological mechanisms, and (B) recognises that it is hard, in the first place, to even capture what morality is, but still wants to argue for a specific adaptation that accounts for morality.

In this thesis, on the other hand, I suggest that while the mechanisms producing the morally-relevant capacities were biologically selected and are innate in this sense, what Joyce refers to as the "moral sense" is unlikely to be a naturally selected trait since it depends on so many other adaptations. As such it is more plausibly represented as a bi-product of adaptation, rather than an adaptation itself. Neil Levy argues in a similar way, claiming that morality, instead of being an adaptation, is an "exaptation", a term we encountered in Chapter Two which denotes a trait which serves another role other that that for which it was selected. In his own words:

> I am suggesting that morality might be an exaptation. We evolved a set of moral emotions, and, as a consequence, a conception of morality as objective and unconditionally binding. We then *exapted* this concept: using it is an independent measure of behaviour (2004a: 86).

While I agree with Levy that the word "exaptation" captures morality much better, I maintain still that caution is required with such language. To say that "morality is an exaptation" still suggests that there is a single adaptation that was then exapted, which, I argue, misrepresents morality.

Summary

It is reasonable to conclude that we are often motivated to behave in morally relevant ways based on a reason-based decision to do so. Also, reason comes to play in helping us determine both how we should apply a particular moral principle, and how we should judge the moral worth of a particular act. I also observed that sometimes our decision to uphold a particular moral principle may conflict with what we *feel* ought to be done. This, however, is not to suggest that moral decision making is always an either/or situation. Our motivation might stem from reasoned argument, but this argument might include consideration of how we actually feel about certain situations. I might, for example, decide to let a runaway trolley kill the five people

on the track because I reason that I could not live with the guilt of being personally responsible for the death of one person.

In this chapter I also suggested that without the capacity to reason and reflect one cannot be considered morally responsible. This is why people who are intellectually impaired are not considered to be able to make morally relevant decisions. I followed this observation with a brief discussion of the idea of "moral identity" which I presented as more rationally based source of moral motivation. Here I concluded that some people deliberately set out to mould their lives according to a moral ideal that they have perceived. Living up to this ideal thus provides a strong source of moral motivation for them.

I concluded this chapter with a consideration of how we might see Joyce's proposal of a "moral adaptation" in the light of conclusions I have sought to establish throughout Part Three. I argued that a consideration of the different ways in which we come to form moral intent precludes the possibility that we can talk about a single adaptive trait which accounts for all of these aspects. Furthermore, I contend that my account of moral motivation eliminates the requirement of a singular "moral adaptation" in any case.

General Conclusion: Part Three

In this part of the thesis I discussed moral motivation, arguing that it derives from different sources which are sometimes intimately connected, and at others are more disparate. I started with the contention that sometimes we are motivated to uphold moral rules in response to the prospect of reward or punishment. I concluded, however, that while such prospects might provide behavioural motivation, they are inadequate as an overall explanation for *moral* motivation. In particular, they cannot adequately explain why people choose to maintain particular moral positions regardless of whether there is social reward or punishment involved in doing so. This, I explained, is because what we consider genuine moral motivation derives from the intent to do (think, be...) things that are categorically "right" or "wrong", rather than from the intent to avoid punishment, or reap reward. I did, however, suggest that systems of punishment and reward may and do serve to inculcate moral principles and that consequently we may come to actually believe that they are categorically right or wrong indirectly via reward and punishment.

At the core of this discussion, the moral "ought" made its reappearance. This I defined as a word which encapsulates belief we have that some actions (thoughts, characteristics...) are categorically, rather than instrumentally, right or wrong. I argued that it is this concept, for example, which differentiates the moral rule from the ordinary social rule. This discussion, in turn, gave rise to a distinction between two different *types* of moral code which are relevant to our lives; "public morality" and private or "personal" morality. I made this distinction here in recognition of the fact that sometimes we believe that certain things are morally right or wrong *independently* of what our social group might tell us to the contrary. I also suggested that public morality was more closely linked to the fitness enhancing (and hence more obviously instrumental) ends of social cohesion. Personal moral codes, on the other hand, are not as often thus orientated. I recognise, however, that much that will

constitute our personal moral codes will almost certainly overlap with the public moral code of our social group.

As an illustration of the propensity of personal moral codes to stretch Wilson's "leash," I considered vegetarianism. Moral vegetarianism is particularly interesting since it is as an example of a moral principle which often leads to social marginalization, rather than social cohesion. This underlined my suggestion (made in Part Two) that moral rules have become more than mere socially useful injunctions; they seem rather to stem from a genuine belief in moral concepts such as "right" and "wrong". This observation ushered in the need to account for this belief. In Chapter 8, then, I provided a lengthy discussion of the way in which belief in moral right and wrong arises from our emotional experience of the world. I concluded that our ability to experience emotions fills in some of the gaps that remain in explaining moral motivation, and the common belief that moral beliefs, thoughts and principles are categorically binding. In particular, I argued that emotions allow us to form attachments to others in the first place and lead us to behave in ways that promote or reject them. Many of our behavioural choices could be said to be fuelled by the positive or negative emotions the respective relationships generate. If they are positive feelings, we will wish to increase them, if they are negative, we will generally work towards eliminating or avoiding them altogether. Moral concepts as such become bound up in the expressions of our emotional reactions to others. For example, I argued that the capacity for empathy provides an affective motivation to help others by causing us to experience in part their suffering, thereby prompting us to alleviate it; that we see it as *moral* motivation stems in part from our belief (corroborated or initiated by our emotional experience) that it is wrong that they suffer. This experience we express using moral concepts.

This observation led me to make an even stronger (and far more speculative) claim. I suggested that the very sensations our emotions engender are often experienced as evidence that something ought to or ought not to be the case in a more general sense. As such, moral concepts could plausibly be conceived as sometimes being *the*

expression of these deeply felt emotional experiences and the fact that they are of an intrinsically pleasurable or painful nature. That these experiences can be particularly intense, moreover, can partially explain the "oomph" with which we imbue our moral judgements.

Finally, an excursion was made into some of the "biological machinery" that is responsible for generating human emotions in order to emphasise the connection between morality and biology that I have sought to make in this thesis. In this section I focused on people who have suffered damage to parts of the brain implicated in producing emotions in order to reveal how such damage affected the victims' ability to form moral concepts. This not only provided evidence for a connection between emotions and morality, it also contributed to the more general conclusion that morality has no reference beyond organisms that have such capacities. Another important aspect of my discussion was the claim that the emotional capacities which have led to our formation of moral concepts, almost certainly were not selected for this purpose. This, I argued, sheds a lot of light on where we can place morality in a metaethical framework. If moral concepts are the bi-product of a series of evolutionary adaptations (that themselves did not evolve to "reveal" an objective morality) then we might then conclude that there is no such thing as objective moral facts. This argument, which is not my own, will be taken up in Part Four.

In the last chapter, the role of reason as a moral motivator was explored. Discussed in particular here was the role that reasoning plays in our forming and motivating our decisions to act. For example, I argued that in order to reach moral decisions, we have to be able to reflect about circumstances both past and present. I went further than this, however; I suggested that sometimes we arrive at our moral principles via a process of reasoning alone. Often, however, reason and emotion appear to work in tandem in providing the content of our moral codes

Morality and its accompanying concepts of rightness and wrongness, in sum, derive from a series of rational and emotional capacities that humans have evolved. Some

of these capacities have led to moral rules that feed directly into the adaptive uses for which the capacities themselves no doubt evolved (facilitating human relationships, for example). Others have fed into the development of moral rules which are not so obviously linked to adaptive ends – behaviour which has traditionally been difficult to explain in terms of an evolutionary history of humans. The result resembles what Bernard Williams has called an "Internal reasons" account of morality, an account which depicts morality as agent originated and thus not the product of an objective, external code at all (Williams, 1981: 105).

In the final part of this thesis, some of the ramifications of my conclusions will be discussed. This will include comments about the metaethical position of this thesis, as well as a brief speculation about the application of this thesis to the case of other animals.

Part Four: Moral facts, moral error and moral animals

General Introduction

In this part of the thesis, I will consider some of the implications of my thesis. As these implications are not central to my thesis as a whole, the consideration will be only brief, and Part Four will only comprise two short chapters.

One of my principal aims in this thesis has been to find a plausible connection between human biology and morality. Thus far, I have offered an explanation for both how it is that we have come to have moral rules and, more importantly, why we commonly believe that these moral rules are categorically binding. In particular, I have suggested that we often see them as such because we believe that they correspond to mind-independent moral facts. I have argued that this belief is the product of various biological traits that humans possess. In doing so, I have not needed to make appeal to the existence of mind-independent facts at all. In Chapter 10, I will provide some brief arguments which support my initial assumption that there are no mind- independent moral facts. To do this I will draw upon the arguments presented in this thesis which suggest that moral facts are unnecessary to an account of morality, and, that their existence seems unlikely in any case.

I will then briefly consider what the sum of my arguments might be able to tell us about the metaethical status of morality. I will argue that while there do not seem to be any moral facts, and that belief that there are moral facts is erroneous, this does not entail that morality itself is an illusion, a view that Michael Ruse – a well known proponent of the error theory - also endorses (Ruse 1986:252-255). Rather, I will suggest that morality can be redefined so as to represent our *belief* that moral

principles are categorically binding, but which nonetheless recognises the ultimate subjectivity of morality.

Finally, in Chapter 11 I will briefly discuss my contention that morality is a human phenomenon and explain why it seems unlikely that other animals have moral rules. This will serve both as a summary of the points I have made with regards to non-human animals, as well as means of reinforcing the nature of morality as a bi-product of human biological evolution.

Chapter 10: Moral facts and moral error

> ***...There are kinds of importance, and we naturally say that some things are morally important, others aesthetically important and so on. But there must be a question at the end, in a particular case or more generally, whether one kind of importance is more important than another kind (Williams, 1989: 182).***
>
> ***Ethics is an attempt to escape from ...subjectivity" (Russell, 1998[1935]:40).***

Introduction

In this thesis I have argued that morality is the bi-product of a series of human characteristics that are either directly or indirectly the product of human biological evolution. That this is the case invites the conclusion (which I have drawn) that without these characteristics, morality would not exist. Indeed, throughout the thesis a comparison with non-human animals was given in order to specifically suggest that non-human animals do not have moral rules because they lack characteristics which are central to the formation of and adherence to moral rules. I will elaborate on these conclusions in Chapter 11. While this is not the only possible conclusion that might be drawn from the arguments in this thesis, it seems the most plausible conclusion, as I will argue in this section

This chapter will also be devoted to a brief consideration of what my thesis suggests in terms of the metaethical status of morality. I will argue that belief in mind-independent moral facts is erroneous; as such, I agree with the error theory of morality, most famously espoused by J.L. Mackie (1977), but more recently taken up by Michael Ruse (1986) and Richard Joyce (2000). I will argue, however, that even if such belief is erroneous this does not entail that we should reject morality or "deprogramme" ourselves (Woolcock, 1993: 428) to stop using moral concepts. Rather, we need to redefine morality in a way that no longer makes reference to objective mind-independent moral facts. Morality, as I have presented it in this

thesis, is the product and expression of a series of beliefs, wants and needs that are considered to be of utmost importance to those that harbour them. Morality also serves to protect and promote these values and as such serves a valid and important role that corresponds to the reality of people having values which require protection and promotion in the first place. As such, the status of morality as I have presented it is essentially subjectivist.

10:1 Are there moral facts?

I began this thesis with the assumption that there is no such thing as mind-independent moral facts, and have offered explanations for the common belief that there are such facts. In this section, I will offer several arguments which support my initial assumption. I will not spend a considerable amount of time on this question, as it is not central to the main conclusions I have presented in my thesis. Rather, it is my main conclusions which suggest that the existence of mind-independent facts is unlikely. While I cannot prove that they do not exist, I can at least claim that they are unnecessary to account either for the origins of morality or the common belief that moral rules are categorically binding. In this elaborating this claim, I shall employ similar arguments to those made before me by, (amongst others) Richard Joyce (2000, 2006) and Michael Ruse (1986).

As suggested above, the kind of account of the origins of morality that I have provided does not prove that there are no such things as objective moral facts. This is an objection raised by Wim Van Der Steen (1999) as well as Philip Kitcher (1985) to similar types of argument. It might be argued, for example, that our biological capacities have merely enabled us to understand or perceive moral facts that exist independently of our perceiving them. As such, just because we require a series of capacities to understand morality does not then mean that the moral facts would not be there if we did not have the capacities. As Kitcher argues, our knowledge of mathematics also relies on our having certain abilities, but we nevertheless do not consider mathematical rules to be entirely subjective (Kitcher, 1985). Van Der Steen

argues that we require a further thesis "...like (A), that the processes that determine what moral beliefs people have are entirely independent of which moral statements (if any) are true" (1999: 50). He concludes that "It is unclear why (A) should be true" (1999: 50-51).

There is much merit to this objection. It falters, however, with respect to one significant point; the analogy is imperfect. For example, there is little disagreement about certain fundamental mathematical propositions; that 1+1 =2 is rarely questioned, for instance. It is, moreover, something we can empirically test, without alternative conclusions being reached; no matter how many times, and in how many different circumstances I put one thing with another, I come up with two things. This is a point that Gilbert Harman makes (Harman, 1977: 9-10) with regards to both science and mathematics.

> Observation...*is* relevant to mathematics. In explaining the observations that support a physical theory, scientists typically appeal to mathematical principles. ...Since an observation is evidence for what best explains it, and since mathematics often figures in the explanations o scientific observations, there is indirect observational evidence for mathematics. There does not seem to be observational evidence, even indirectly, for basic moral principles (Harman, 1977: 10).

This point is supported by the fact that there is also considerable variation in what are considered to be moral truths. Typically controversial issues such as abortion, homosexuality, and euthanasia continue to cause dispute because of the lack of consensus regarding moral truths. Even a common moral taboo such as the incest taboo has had cultural exceptions. While this does not *prove* that there is not one set of moral facts, the difficulty of finding this set of facts and the basis upon which it is formed suggests that there might be no such thing. In making this point, I am in agreement with both Bruce Waller (1996) and John Mackie (1977). In Mackie's words:

> Such variation is in itself merely a truth of descriptive morality, a fact of anthropology which entails neither first order or second order ethical views. Yet it may indirectly support second order subjectivism; radical differences between first order moral judgements make it difficult to treat those judgements as apprehensions of objective truths (Mackie, 1977:36).[123]

To further support my contention that there are no such things as mind- independent moral facts, two different arguments presented in this thesis are also relevant. To begin with, I argued that morality emerged as a solution to the various problems presented by group living. For example, in Part One I suggested that one of the difficulties that arise in social situations is the problem of sharing up limited resources and the dispute that this is likely to cause. Moral tenets which encourage cooperation and fairness serve to ensure that social cohesion is maintained. In this sense there is little separating moral rules from ordinary rules in terms of the instrumental role that they play in maintaining social order. In such an instrumental role, they become mutable: more importantly, however, *they need to be* mutable in order to be relevant to varying needs or changing circumstance. The fact that some moral rules appear to be more steadfast than others reflects more the fact of humans having basic common survival needs that require fulfilment or protection, rather than their instantiation of some kind of moral truth.

The second argument is related to the above argument. I have provided an explanation for the social utility of morality which leads us to question why we have morality at all and not just social rules. In response, I actually appealed to the concept of moral facts. I suggested that what seems to separate the ordinary rule from the moral rule is the belief that morality does indeed represent some kind of truth about ultimate value that derives from a series of mind-independent moral facts;

[123] Neil Levy makes some very useful comments concerning conclusions drawn about the non-existence of God base on the suggestion that we are biologically adapted to believe in God, as compared with similar conclusions about belief in morality. In his words, "If there is a God, his existence is entirely independent of our belief in him... But it is very plausible to think that morality is not like this. It is not independent of us and our beliefs, in the way in which God...is. Instead, it is at least partially constituted of our beliefs and moral emotions."(2004: 80).

in brief, we seem to believe that that there are moral facts. Part Three of this thesis, however, was devoted to demonstrating how such a belief might arise. I argued, for example, that belief in the intrinsic rightness or wrongness of morality derives from a number of sources which have no necessary existence themselves. Three sources were identified; (a) the ability to feel emotionally attached or repelled by people or situations; (b) the ability to reason and reflect; (c) our vulnerability to the social conditioning that occurs as a part of the process of social learning we undergo as children. Here I provided evidence that impediments to certain of our abilities to think or feel likewise seemed to impede the ability to behave or reason in a moral way. For example, the psychopath whose empathetic capacity is limited likewise appears to have a limited capacity to develop or follow moral rules. While this does not prove that moral judgements have no objective truth value, it supports the claim that they don't by suggesting that *belief* that certain moral principles are true or false is capacity-(and environmentally) dependent. This suggests that the moral principles do not actually have to be true in order for us to believe that they are: we just have to have the capacities that *incline us* to believe that they are. If we do not have these capacities, we are no longer inclined to believe that they are morally right or wrong. The fact that the sources of these beliefs also lead us to different conclusions about what is morally right or wrong further undermines the credibility that there are mind-independent moral facts, as mentioned previously. Important, moreover, is the idea that these beliefs are the product of adaptations which were selected for functions that have nothing directly to do with the generation of either moral rules, or belief in moral rules. I emphasised this point in detail in both Chapters 8and 6. This, then, satisfies Van Der Steen's requirement for a "further thesis" identified above; that is, his requirement that the sources of people's moral beliefs have nothing to do with whether or not the moral principles are actually true. To re-iterate, morality is the bi-product of adaptations which were selected for characteristics that have nothing to do with the truth or otherwise of moral judgements – nor, for that matter, were they selected specifically because of their role in the generation or particular content of moral rules. This, according to Michael Ruse, who also proposes the same argument, renders "ultimate principles" redundant in an account of morality. In his words:

> The objectivist must agree that his/her ultimate principles are...redundant. You would believe what you do about right or wrong, irrespective of whether or not a "true" right or wrong existed...Given two worlds, identical except that one has an objective morality and the other does not, the humans therein would think and act exactly the same ways. Hence the objective foundation for morality is redundant" (Ruse, 1986: 254).[124]

As emphasised, while these arguments do not *prove* that there are no such thing as moral facts, my thesis nevertheless provides an alternative explanation for our moral beliefs and rules which coheres much better with the fact of humans as biological organisms and for which, importantly, there is strong empirical evidence. Mind independent moral facts, on the other hand, make appeal to entities about which there is neither consensus, nor for which there is much evidence. Indeed, such facts are not only difficult to find, that they are somehow "out there" renders them, as Mackie famously claimed, metaphysically "queer" (1977:38-42). In his own words:

> If there were objective values, then they would be entities of a very strange sort, utterly different from anything else in the universe. Correspondingly, if we were aware of them, it would have to be by some special faculty of moral perception or intuition, utterly different from our ordinary ways of knowing everything else (1977:38).

Before leaving this section, an alternative approach to the issue of moral facts which merits mention here is that espoused by moral naturalists. Richard Joyce gives a useful definition of moral naturalism, describing it as the "...view according to which moral properties and relations exist and can be comfortably integrated within a naturalistic view of the world – the kind of world that science can investigate."(Joyce, 2006: 145) He further cites Utilitarianism as a good example of a moral naturalistic position. (A Utilitarian, for example, might define value as "happiness". Consequently we can discover facts about moral values by investigating what it is empirically that produces happiness). (Joyce, 2006: 145)

[124] As quoted in Lillehammer (2003: 576)

One of the principal problems posed by naturalism of this type - as Joyce and others point out - is actually *finding* the naturalistic facts which can then be translated as moral facts.[125] In other words, in order to arrive at these "moral facts", we require an explanation in naturalistic terms that would account for them. To begin with, what we find, as I have emphasised throughout my thesis, is that we are initially hampered in our search for these natural facts since "moral facts" are themselves very difficult to locate. For example while there is certain cross-cultural convergence of a number of broad moral tenets, their uniform maintenance nevertheless remains subject to change and variation in accordance with differing environments, culture, individual desires and biological make-up. Consequently, it is difficult to even find uncontroversial candidates for moral facts in the first place. This aside, even if we were to propose candidates, the biological facts from which they are derive are indeed, as Joyce claims difficult to locate. For instance, as I have argued that morality is not in any sense an "evolved adaptation" itself, we cannot look to this for a source of biological facts from which moral facts can be derive either, as others have attempted to do. [126] Moreover, even though I have made abundant appeal to "nature" in my account of morality, my conclusion gives rise to a portrait of moral values which are neither reducible to any definitive "facts" about human beings in general, but are rather contingent upon a plethora of different features about humans which contribute variably to their formation and nature. Furthermore, any "facts" about human beings relevant to morality only *describe* why we might form or adopt certain moral tenets: they do not justify them. These considerations I suggest to be further evidence for my conclusion that moral facts are not only unneeded to explain morality, but also that they are simply not there for the taking even if they were. As such I reject the type of moral naturalism described by Joyce above.

Finally, as I mentioned to begin with, my thesis has sought to make a connection between morality and biology. The existence or otherwise of moral facts will does

[125] Joyce cites Gilbert Harman (1986) as another who raises this issue.
[126] See Collier and Stingle(1993).

not affect my conclusion that the two are causally connected. I maintain, nonetheless, that they do not exist. I will now consider the ramifications that such a proposition might have for morality.

10:2 The moral error theory

In the previous section I briefly stated reasons why I consider that the existence of objective, mind-independent moral facts is quite unlikely. This conclusion is problematic, however, since morality, as I have presented it here, is widely perceived as having some kind of objectivity. I maintain, along with John Mackie, and more recently, Michael Ruse and Richard Joyce, that our belief in morality so perceived is "erroneous." The principal difference between Ruse and Joyce's positions and mine, however, is that they both argue for the existence of an adaptation which accounts for this aspect of morality. For Ruse, the belief that morality is objective is the adaptation. For Joyce, it is a trait which instils a sense of obligation about the expressions of what (I have argued) are ultimately our desires. In my thesis, on the contrary, I have argued that our belief that morality is objective and our sense of moral obligation can be explained without recourse to "morality-specific" adaptations: rather I have argued that these aspects of morality are the bi-product of a number of different biological adaptations which were selected for other functions. Such an argument, however, does not affect the conclusion that a belief that our moral judgements express truths that correspond to objective moral facts is erroneous.

So where does a moral error theory leave us? On first consideration, it might seem that the most sensible thing to do is eliminate talk of morality altogether, thereby adopting a moral nihilistic position. In the words of Joyce, "Surely to see nonsense for what it is requires, on pain of irrationality, its rejection?" (Joyce, 2000:731). Joyce does not take this path, however. He has argued, in response to Ruse, that it is not irrational to include "fictions" such as morality in our lives since they are fictions

which are "useful."[127] That morality is indeed useful was argued in Part One with particular focus on the way in which morality serves to boost social cohesion and hence individual survival prospects. In fact, morality appeared to be a central component of the regulation of human cooperation.

But ordinary rules also play this part very well without the need to refer to "fictitious" concepts such as the moral right or wrong, so Joyce's answer does not, initially, seem very satisfying. There are, however, significant differences that I have drawn between ordinary rules and moral rules that may help explain why we maintain moral concepts such as "right" and "wrong". To begin with, I have argued that the moral right or wrong is imbued with a certain power or authority that ordinary rules do not have. In this sense, morality proves useful in that it provides an added motivational boost to adhere to the rules it prescribes. But while this might explain why we might choose to maintain moral concepts – and indeed how they perhaps developed in the first place, as argued in Chapter 3 - it nevertheless ignores a significant part of what this thesis has tried to establish about morality. While it is certainly plausible that moral rules and concepts have most likely been used by humans in response to the need for order and cooperation in a social group, they represent much more than this. Indeed, the very fact that moral concepts wield such authority and power also implies that that there is something *about us* in the first place that makes us *amenable* to its power and authority. In Part Three, I argued that morality is deeply entwined with our capacity to care or "feel" deeply about certain matters, a capacity which appears to be the product of a variety of innate mechanisms. Morality, I suggest, represents the values we develop and the rules we make which protect and promote the subjects of our care and concern. Morality, however, not only represents the belief that some matters are of utmost importance and value: it also represents the conviction that they are of *such* importance that not only we, but others too, ought to do whatever they can to promote and protect them. While the importance or value we attach to certain matters might lead us to believe that our convictions have some kind of

[127] This is Joyce's position in 2000. He is less clear about his position with regards to moral "fictionalism" in 2006, although still claims that he is "rather fond" of it. (2006: 167)

correspondence to objective facts, the possibility that there are no such facts does not necessarily diminish or eliminate either the importance attached to these matters or the conviction that others should find the same matters important as well.

One might question why we need moral discourse to express such beliefs and convictions, however. If morality is ultimately defined as being the expression of needs and wants, whether individual or collective, why then use moral language at all. As William Hughes claims, it seems more "rational" "... to eradicate moral and ethical language altogether, and replace it with the language of needs and wants" (Hughes, 1986: 306).[128] This question becomes particularly pertinent when we observe that what is considered a "moral issue" remains hugely variable, and seemingly irreducible to a set of common principles. Such variability underlines the subjective nature of our moral opinions and as such suggests that they would be more realistically expressed in the language of "preferences" or "desires". In Chapter 7, for example, I discussed vegetarianism, a moral position which although widespread, is nonetheless a minority moral position in the Western world. The values it seeks to protect are also not apparently reducible to any universal maxim, since there seem to be great variety in people's motivation for being a vegetarian. For example, the choice might arise from ecological concerns, animal welfare concerns or perhaps from an aversion to the taste of meat. This suggests that it would be perhaps more straightforward to simply talk about what we like and don't like, rather than employ terms which suggest that these wants and needs are objectively valid, when they are not.

This, of course, is a conclusion which is highly distasteful to many, if not most, people for reasons I have just emphasised - when we claim that something is "morally wrong," we are generally not simply expressing "any old" want or need: we are expressing values which we consider to be of such importance that we think others should adopt them as well. That we actually do prescribe our values, however, can also be partially accounted for in a practical way as well. For instance much that we

[128] As quoted in Joyce (2000:727).

care about actually involves other people or organisms. As such, by attempting to oblige others to care about these things as well we are ensuring that certain of our values are being maximised (Singer, 1979: 11). [129] When, for example, my friend tells me it is wrong to consume other animals, she means to say that *all* people should refrain from consuming animals – by doing so, she not only emphasises the strength of her values, she also helps to lessen the number of animals that are suffering. When she says that she wants to eat strawberry rather than chocolate ice cream, however, she might be expressing another of her preferences, but the difference is that (A) it is not a preference which (presumably) she wants to express as a matter of utmost importance, (B) she most likely doesn't care whether or not I share her preference, partially because (C) whether or not I eat strawberry ice-cream will not affect the satisfaction of her desire to eat it. Moral rules, then, can be practically differentiated from other types of rule firstly by the fact that they represent the pinnacle of a hierarchy of "wants and preferences" that we have; and secondly because these "wants and preferences" often involve others, so we will try to convince others that they should be considered of utmost importance as well in order to maximise our values.

Our concerns are not over, however. The fact of irreconcilable variety in moral principles that a subjectivist approach obliges us to accept might worry us in other ways. Simon Kirchin expresses this concern quite well with respect to ethical relativism:

> We are often troubled by ethical relativism. There exist first-order ethical judgements and practices which are different from our own judgements and practices. Upon reflection we might feel perturbed because there is nothing which establishes our judgements as being the true and correct ones. We might wonder further if any judgement can be justified as the true and correct one and that, instead, all ethical judgements are as good or true as each other. This second

[129] This is one of the ways in which Peter Singer actually differentiates the moral from the social rule. As he puts it, "The difference between a value an a rule is that it makes sense to maximise a value – to increase it as much as possible- whereas we can only comply with a rule".

> thought is characteristic of ethical relativism. Ethical relativism is threatening because it conflicts with another deeply held conviction or ours, that there are uniquely correct and true ethical judgements, where that correctness and truth is not dependent on any particular idiosyncratic way of living or thinking (Kirchin, 2000: 413).

This, then, is a different concern; it is the concern that we might be mistaken in considering certain of our values to be of utmost importance, since others might be equally valid. History, however, has shown that the fact of variation in what different people consider to be of utmost importance has not led people to abandon their moral principles. This, I suggest, is because it cannot, since moral principles are not the kind of principles that can be so easily abandoned. That this is the case can be explained in part by the origins of these principles, as suggested in Part Three. For example, the emotional attachment that one has for one's children will usually entail that one considers it to be morally wrong to cause unnecessary harm to them. That not everybody agrees with this may seem abhorrent to us, but one can accept this disagreement without it necessarily affecting either our desire that our children not be harmed, or our need to express this desire in the form of a categorical imperative – indeed one might even suggest that it cannot affect this desire, since unless we are psychopathic, our empathetic reactions to our children will generally entail that we *can't help but* consider it of utmost importance that they not be harmed. Indeed, as I mentioned above, the fact that there might be people who would harm our children will most likely heighten the need for concepts which express both the strength with which we maintain our convictions and our desire that others embrace this conviction as well.

This leads to a second point. While it is true that there is a remarkable diversity in moral rules, there is nonetheless a quasi-universality which is borne of certain shared wants and needs throughout human kind: or, as Michael Smith puts it, there is a "...convergence in our desires" (Smith, 1991: 409). For example, in Part Two, cross-cultural moral variety was briefly examined with a view to determining whether or not there was the extent of variety that there appears to be on the surface. Here I

suggested that some outwardly disparate moral tenets are in fact quite similar in that they are just different ways of protecting a set of shared values. A number of these shared values can be accounted for by the fact that as a species we share a similar biological makeup that gives rise to certain fundamental experiences of the world (such as, for example, our susceptibility to pain and pleasure) and certain fundamental needs (to be fed, to reproduce etc.). Such needs form a core set of values that are central and common to humanity. In the words of Peter Singer;

> There seems to be a popular belief that the taboo on incest is the only moral rule that holds everywhere. The reality is that some much more significant ethical principles carry weight in virtually every human community. These include; obligations on members of family to support their kin; obligations of reciprocity, to return favours done and gifts received; and constraints on sexual relationships...The precise form of the obligations or constraints varies from one society to another, but the significance of these universals lies in the fact that obligations of kinship, reciprocity, and sexual relationships form the core of all human ethical systems – and they also guide the behaviour of our close non-human relatives (Singer, 1979: 57).

Other values, however, may arise as the product of a process of agreement in which we *decide* that the values should be protected (Gauthier, 1988). In Part One, for example, I argued that many of our moral rules emerged out of the collective need to find rules which ensure group cohesion. This includes the need to foster altruism and to curb selfishness, or to regulate human sexuality. In this sense, a hankering for objectivism can be achieved by a process that Peter Woolcock describes as "procedural objectivism" (Woolcock, 2000: 42): that is, it can be achieved when a group of people get together and come to some kind of "agreement" about what is and what is not going to constitute a set of moral rules. According to this, the claims can be "true" or "false" according to whether they have passed through a procedure whereby they have been agreed upon by the group in question.[130] This is the approach described by constructivists such as Scanlon (1982) and Korsgaard (1996)

[130] Woolcock has drawn this point from B. Barry's *Justice as impartiality* (1995: 11.)

and it also a process which in Part Two I suggested accounted for a significant amount of what we call "public morality".

On a more local level, then, such processes will entail a certain universality that arises from people getting together and making collective decisions based on what is right or wrong (or, in the language I have adopted in this section, what is considered to be of "utmost importance" in the group). This process also accords with the arguments I presented in Chapter 9 where I suggested that we sometimes arrive at the conclusion that some things are of utmost importance via a process of reasoning. Peter Singer, for example, argues that rational reflection allows us an appreciation of the fact that other people have interests, wants and needs as well, and that we can use morality to express our understanding of the importance of these interests. As he claims, "By imagining ourselves in the position of others... and taking on their tastes and preferences we can arrive at a reasonably confident verdict about which action will satisfy more preferences" (Singer, 1981: 101). These verdicts we can then codify into moral rules (if we are so inclined).

In sum, it would seem foolish to reject morality on the basis that it does not in fact correspond to the way in which many of us perceive it. Rather, we need to recalibrate the way *we perceive morality*. What we would have in its place, I suggest, is a modified concept of morality which does not appeal to moral facts, but which nonetheless represents the "clout" of our moral judgements. Although one might still be inclined to argue that without some kind of mind-independent moral facts almost anything becomes a moral issue, the fact that this does not actually occur supports the postulate that morality does have a recognizable role to play in the lives of most people – notably, as I have suggested, that it represents the fact that we consider some things to be of considerable importance: this importance, I argue, is aptly expressed by moral concepts. Moreover, the ability to understand the minds of others, to suffer as they suffer, to form relationships with them also provides the basis for the forging of generalised rules that extend what we consider important to others for consideration as well.

Summary

Moral rules are the means by which we express some of our strongest desires and, also, the way we go about trying to get others to share these desires or, at least, to not contravene them. Morality, I suggest can be validly redefined in terms of this role.[131] Moral rules can be distinguished from ordinary rules in terms of the subject matter they treat: the profound, emotional and rational attachments (and detachments) that we have towards situations involving ourselves and others. As many of these spring from deep-seated, biological fuelled reactions to situations which seem to escape our direct control, it is, moreover, very difficult to simply discard these beliefs, ideals and values. In sum, then, the error theorists are correct when they claim that belief in objective moral facts is erroneous, but if we change our definition of morality to preclude appeal to moral facts - as I have done here - then the error theory need no longer apply. Consequently, we no longer need to take a moral nihilistic approach and/or argue that morality should be rejected.

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[131] I am not, of course, the first to define morality in such a way: C.L. Stevenson proposed a similar definition in 1944, a position which has come to be known as "emotivism".

Chapter 11: Moral animals.

Of all the differences between man and the lower animals, the moral sense is by far the most important (Darwin, 1871: ch 4).

We are primates. And we better take this monkey business seriously. (Suddendorf, 2002: 712-713).

Introduction

I have argued that morality emerged as a bi-product of biologically generated capacities some of which were selected for their contribution to what I have called "human sociality." Principal among these evolved traits are those that have been selected for their contribution to human language and social learning skills, as well as those which constitute the human affective system. Throughout this thesis, other animals have been used as a point of comparison. This has been primarily with the end of establishing whether or not certain features of both culture and morality can plausibly be attributed to the existence of specific biological traits. One of the main conclusions I reached was that while other primates (for example) exhibit similar capacities to humans, they either do not have those that are centrally implicated in the development of complex cultures, or, if they do, they are at best rudimentary. As many of these capacities also contribute to the formulation and expression of moral principles, and, importantly, the motivation to uphold them, it might also be expected that moral principles also do not figure in primate life. In this brief chapter, I will consider this postulate in more detail.

11.1 The moral animal

The first thing to consider is that if one maintains that moral rules arose as part of a system of social regulation (as I have argued), then the fact that other animals also live in groups might lead us to expect that they too might have similar forms of social regulation. And this is what we find. One need only look at a bunch of chickens

around the grain bowl to realise that there are "rules" about which chicken is allowed first peck at the grains. Ant and bee colonies are of course the paradigm of social cooperation, with each insect playing a specific role in maintaining the vast, complex colony of which they are a part. Likewise, examples of morally relevant behaviour appear to abound throughout the animal kingdom, particularly examples of what appears to be morally altruistic behaviour: the prairie dogs which risk their lives to act as sentinels of danger; the bird that will feign injury to divert attention of a predator from its young; the chimp that adopts the offspring of a deceased; the dolphins that have allegedly saved humans from sharks.

Too often, however, comparisons between human and non-human behaviour are plagued by our propensity to draw conclusions about the *nature* of acts which rely solely on observation without further investigation into the motivation which has inspired the acts. This is a mistake, because considerations of intent and motivation are in fact central to deciding whether or not an action can be considered morally relevant. In Chapter 2, I argued, for example, that while the eusocial insects appear to be supremely virtuous, evidence suggests that they behave without the kind of conscious intent to be altruistic that characterises moral altruism in humans. Consequently, I concluded that their behaviour cannot be classed as being *morally* altruistic.

There are those, who would protest the validity of even *attempting* to draw any conclusions about the motivational states of animals based on the observation of behavioural similarity between us and them. To do this, they claim is to apply anthropomorphic attributions to organisms that are not human and who therefore cannot be assumed to be cognitively comparable. Consequently, one also cannot assume that they are motivated in a comparable way.[132] So even if we try to "practice 'dogomorphism'", as Marc Bekoff claims that he tries to do (2004: 489), according to this argument we are nevertheless prevented from truly knowing much about the cognitive states of other animals: all we seem left with is behaviour that appears to

[132] Daniel Povinelli (2000) is particularly critical of arguments by analogy of this nature.

parallel human behaviour and the inference that it was carried out with the same kind of end result in mind as the human behaviour.

However, when the animal in question is a primate with whom humans share a very similar genetic makeup (such as the chimpanzee or the bonobo) certain analogies do appear more justified. Similarities in behaviour, for example, suggest that perhaps the traits in question were present in some form in the common ancestor which links us to the *pan* species (i.e. chimps and bonobos)on the evolutionary tree, and that both we, and our primate cousins have maintained the trait long after we evolved into separate species (Boehm 2000: 81). What we find, moreover, is that there are enough similarities in terms of genetic makeup and behavioural repertoire between our species and theirs to render behavioural comparisons useful in terms of what they can tell us about the evolution of certain traits. In the words of Thomas Suddendorf,

> If all members of a clade, a complete group of organisms derived from a common ancestor, share the same trait, it is more parsimonious to assume that the common ancestor had that trait than to propose that each species developed it independently. (2003: 707).

Consequently, when certain non-human primate behaviour strongly resembles human behaviour, then we perhaps have a more solid basis for suggesting that it is motivated by similar considerations.

In Chapter 6 some of the ways in which humans could be differentiated from other animals were suggested including, most significantly, our allegedly more advanced powers of reason and recall, both of which I argued are central to the formation of moral principles. Darwin himself made a similar point.

> A moral being is one who is capable of reflecting on his past actions and their motives- of approving of some and disapproving of others; and the fact that man is the one being who certainly deserves this designation, is the greatest of all distinctions between him and the lower animals (1871:ch.11).

These days, however, such claims of exclusivity are becoming increasingly debated. Famous, well respected primatologists such as Franz De Waal and Jane Goodall tirelessly point out behaviour which suggests that other primates have similar cognitive capacities to our own, even though they might be somewhat limited. For De Waal and Flack, the existence of systems of reciprocity amongst non-human primates indicates the presence of cognitive ability which is more sophisticated than often suggested.[133] For example, while food sharing is not uncommon throughout the animal kingdom, they suggest that in apes, food sharing often forms part of the kind of calculated systems of reciprocity also found in human societies. In this case, food will be shared in return for a like service having been rendered by the receiver in the past, or in anticipation of such reciprocation in the future. If De Waal and Flack are correct, such systems indicate the existence of some of the capacities that I have suggested (both above and throughout this thesis) are central to human morality. For example, a system of reciprocity suggests that there are concepts of obligation within the group that are created by recognition of "debts incurred and favours owed". This, in turn, indicates that there is the neurology in place that is required to remember, process information and calculate future requirements, notably the type of rational behaviour that Darwin felt was central to the difference between humans and the "lower animals" mentioned above.

De Waal recognizes, of course, that there are several other plausible hypotheses for why non-human primates might share their food, and that not all of these are consistent with the kind of "morally-intended" motivation that we associate with human morality. For example, Richard Wrangham (1975) advanced the proposal that food sharing comes about as a response to harassment from other members of the group coupled with the possibility of aggression as the result of non-compliance. According to this explanation, then, the primate does not share food out of a sense of fairness, kindness or even, in the hope of having the favour returned at some future

[133] References to de Waal (except where otherwise indicated) are drawn from his 2000 paper "'Any animal whatever': Darwinian building blocks of morality in monkeys and apes."(Co-authored by J.C. Flack).

point, but rather because it is responding to intimidating threats. This kind of fear reaction brings to mind the case of the Rhesus monkeys discussed in Chapter 8 in which the monkeys abstained on occasion from taking food if they could see that doing so caused pain to a conspecific. While this looked like an act inspired by empathy, another plausible hypothesis was that the monkey was merely frightened into inaction by the sight of a conspecific creating a lot of noise.

De Waal and Flack, however, support their argument with what they claim to be incidents not only of punishment taking place in chimpanzee groups in response to failed reciprocity, but also revenge. They claim, for example, that chimpanzees that have been intervened against by other chimps are more likely to intervene against these same chimps in future interactions, suggesting that in doing so, they are taking their revenge (De Waal & Flack, 2000:5). The ability to seek revenge again suggests that the chimps can recall prior behaviour, and that they can also calculate means of punishing offenders in the future. For De Waal, these examples provide further evidence for the type of calculated reciprocity which typifies human social interactions and indicates that the capacities required for something as sophisticated as implementation of rules of justice and fairness may also be present in chimpanzees.

> Reciprocal altruism differs from other patterns of cooperation in that it is fraught with risk, depends on trust, and requires that individuals whose contributions fall short be shunned or punished, lest the whole system collapse (De Waal, 1996: 24).

Finally, it is interesting to note that altruistic behaviour of this nature is often extended beyond kin to other group members in chimpanzee communities (Flack & de Waal, 2000: 17). This differentiates their altruism from the altruism of the eusocial insects which can be adequately explained in terms of kin selection. It also brings non human primates to the type of other regarding behaviour that typifies human behaviour and, specifically, our moral systems.

But does it? It is arguable whether reciprocal altruism can even be called morally relevant altruism in the first place. I have, for example, emphasised that consideration of intent is central to a decision about the moral status of certain actions. The intent central to reciprocal altruism, however, is bound up with considerations of what one will "get out of" the exchange, rather than with intent to behave kindly towards another. As such, it does not seem like altruism at all, but rather simple selfishness in the form of a desire for reciprocation of a given action or a desire to avoid punishment: "genuine altruism", on the other hand, signifies behaviour that is performed with another's welfare, rather than one's own, in mind. This is a point for which I argued in Chapter 8. [134]

One might of course reply that the moral concepts of fairness and justice are intimately connected to reciprocal altruism (as I argued in Part One). This may be the case. If morality is predominantly about protecting values (as I have also argued) then behaviour which seeks to promote fairness and justice must be, and indeed is, included in the sphere of morally motivated activity. It is not clear, however, whether the concepts of fairness and justice do actually figure in the reciprocal exchanges of other primates, however. To begin with, it is unclear why they would even need to have such concepts in the first place. In terms of utility, groups of primates would be able to keep accounts of who has done what to whom fairly easily, since there are not vast numbers in their social groups to account for in the first place. As such, the chances of "getting away" with not reciprocating and avoiding punishment are significantly reduced. Most reciprocal transactions, then, could be dealt with specifically via punishment and reward systems. The concepts of justice and fairness are more "useful" as a sanctioning device for large numbers of people when accounts of people's behaviour cannot be so easily kept, and hence there is more of a chance that transgressions go unchecked. Moral concepts such as "right" and "wrong" also serve in this case to sanction behaviour via personal policing. Thus, while I might be

[134] In Section 8:7 I also included the observation made by a number of well-respected primatologists that other primates do not seem to manifest "other-regarding" preferences, in any case: cooperation with non-kin is usually self-serving.

able to get away with being unfair or unjust, the knowledge that I am "doing the wrong thing" may deter me from unfair or unjust actions.

More significantly, however, it seems unlikely that without formal language, other animals could even form complex rules let alone moral concepts such as "justice and fairness" in the first place. In Part Two, for example, I suggested that language is intimately connected to the ability to reason. Reason, in turn, is critical to both the formation and application of rules, as I contended in Chapter 9. Evidence suggests that other primates do not possess either complex language skills, or the general intelligence required to understand complex intention in others (as illustrated by the Pinker's dishwashing chimpanzee in Chapter 6). In fact, there is little evidence that other primates are even able to understand the minds of others to be able to theorise about how their actions might affect others in the first place and to form moral concepts based on these conclusions. In Part three, for example, I suggested (along with others) that the evidence of theory of mind in other primates is sketchy. In sum, it seems unlikely that moral concepts figure in the social regulatory systems that feature in non-human primate groups. At best, we have what has been called "proto morality" (Kitcher, 2005: 176; Haidt, 2001: 827) and a number of rudimentary social rules.

Summary

This has been only a brief consideration of whether or not other animals have morality. A more considered treatment of the issue would require far more space than I have here. Since the conclusions I have drawn in this thesis are not contingent upon a firm decision about this issue, I will not dwell any more upon it: rather, it could be considered a "secondary" conclusion. It is also a somewhat tentative conclusion as I mentioned earlier on in this section, it is extremely difficult to draw any hard and fast conclusions about the behavioural intentions of other animals. In trying to do so, one risks succumbing to an unjustified anthropomorphisation of other animals. However, as I emphasised at the beginning of this chapter, considering the

common lineage we share with other primates, to suggest that there is no basis at all for comparison is to be blatantly anthropocentric. As Konrad Lorenz put it,

> You think I humanize the animals?... Believe me, I am not mistakenly assigning human propensities to animals; on the contrary, I am showing you what an enormous animal inheritance remains in man to this day (1952: 144).

What does seem reasonably clear is that there are certain rules in place governing the social interactions of other primates and consequences for breaking the rules. That these might be called moral rules, however, seems unlikely. For example, while altruistic behaviour in non-human primates may resemble certain types of human altruistic behaviour there is nonetheless a large gap separating their behaviour and the range of morally intended behaviour that typifies human life. This, I argue, can be attributed to the fact that the various capacities central to morality are far less developed - if they exist at all - in these same animals. I nevertheless consider the study of these gaps useful in reinforcing evidence that morality is the product of human biological evolution by suggesting that it is fundamentally capacity dependent.

General Conclusion: Part Four

The issues that have been presented in this part of the thesis have only been treated in a summary fashion. More thorough treatments of these questions have filled volumes. That I have not given them greater consideration is because firstly, conclusions reached about some of them are highly speculative and secondly, these conclusions are not central to the establishment of my central theses, as I have emphasised throughout this section: as such, they are secondary conclusions. Nevertheless, they are questions which seem to arise naturally from what I have sought to establish, and as such require mention. In this part, then, I have drawn the following (tentative) conclusions.

- ❖ The existence of mind-independent moral facts seems highly unlikely.
- ❖ That this might be the case does not entail that morality is an illusion, but rather that morality requires redefining in a way that eliminates suggestion that there *are* mind-independent moral facts.
- ❖ Morality, I suggest, can be defined in terms of its representation of our conviction that some things are of "utmost importance."
- ❖ Other primates manifest evidence of having social rules which govern their groups, but it is unclear that we can call them moral rules.

Part Four is the last major section of my thesis. A final chapter will provide a synthesis of the main conclusions that I have drawn and as such will also serve as a general conclusion.

Synthesis and General Conclusion

General Introduction

Throughout this thesis I have argued for a series of conclusions which have as their focus the presentation of morality as a bi-product of human biology. In this final chapter, the major conclusions outlined in the introduction of this final part will be both stated and briefly explained with reference to the arguments presented for them in the various parts of the thesis. These conclusions are (briefly) as follows:

- Certain moral rules, such as those that prohibit incest and those that encourage altruism towards kin, coincide with biological mechanisms which both disincline and incline us respectively towards these same actions. The fact that they are moral rules, however, cannot be explained solely with reference to these adaptations. (Part One).

- Certain moral rules can be considered *fitness enhancing* in terms of the role they play in enabling humans to live together in groups harmoniously (itself a fitness enhancing way of life for humans). (Part One).

- Consequently, there are a number of moral rules that are cross-cultural, since the bulk of the problems that arise in human groups revolve around the universal problem of sharing limited resources amongst individuals. (Part One).

- Cross-cultural moral variety can be partially explained with reference to the differing environments in which people live. (Part Two).

- Morality is the fruit of our ability to formulate, transmit and be motivated by a number of different rules that we consider to be categorically binding. These

abilities derive from a series of evolved biological mechanisms. (Parts Two & Three).

- As the process of formulating, transmitting and motivating moral rules calls upon a whose range of different biological traits working together at times, and alone at others, it is not plausible to maintain that morality is the product of a single biological adaptation. (Parts Two & Three).

- That moral rules are perceived to differ from other rules is because they are often (mistakenly) believed to derive from objective, mind-independent moral facts – as such they are considered true not just for ourselves, but for everybody. This belief provides motivation to uphold moral rules for many people and as such is a core feature of morality. (Part Three).

- Our tendency to make moral judgements that we consider categorically binding is not, contrary to the suggestions of Richard Joyce, the product of a biological adaptation. Rather, it is the product of a number of different biological traits in combination with a range of environmental factors. In particular, our belief that the moral judgements we make are categorically binding springs from or is reinforced by a number of different sources including (A) inculcation by one's social group (B) emotional experiences of an intrinsically pleasurable or painful nature, and (C) rational reflection. (Part 3).

- While we might believe that moral rules derive from objective, mind-independent moral facts, we are mistaken in doing so. This claim is supported by the fact that the sources of this belief do not require the truth of moral rules to explain why we believe them (Part Four).

- While belief in objective mind independent moral facts is erroneous, this does not entail that we should eliminate moral concepts or rules. Moral concepts

and rules express, promote and protect what we consider to be deeply important beliefs, needs and desires. If morality can be redefined to exclude reference to moral facts and to include considerations such as these, it regains an important role. (Part Four).

- ❖ It is highly unlikely that other animals have morality. (Part Four).

Chapter 12: Synthesis of conclusions

1. ***Certain moral rules, such as those that prohibit incest and those that encourage altruism towards kin, coincide with biological mechanisms which both disincline and incline us respectively towards these same actions. The fact that they are moral rules, however, cannot be explained solely with reference to these adaptations. (Part One).***

I began this thesis questioning how morality might have originated within the bounds of the evolutionary history of human beings. The first suggestion I made was that moral rules might be the product of specific biological adaptations like many other human traits. An examination of the two likeliest candidates for such adaptations – incest taboos and kin altruism – followed. I concluded that biological mechanisms which incline us to avoid incest, but be kind to our kin, were insufficient to explain the origins of moral rules which sanction the same behaviour.

This discussion also served to highlight the utility of many of our moral rules. For while I concluded that moral rules are not individually derived from specific biological adaptations, what did become apparent was that moral rules at times serve to fill gaps that biology leaves upon in terms of assuring our own survival prospects. For example, a socially imposed taboo against incest serves not only to decrease the likelihood of malformed offspring: it is also a means of preventing the threats to familial stability that incestuous relationships are likely to entail. More importantly, however, was the more general observation that moral rules contribute to the survival potential of humans by fostering human cooperation. In this sense then, moral rules can serve a similar purpose to biological adaptations: they are not, however, directly derived from biological adaptations.

2. ***Certain moral rules can be considered fitness enhancing in terms of the role they play in enabling humans to live together in groups harmoniously (itself a fitness enhancing way of life for humans). (Part One).***

In Part One I argued that survival prospects are augmented when humans live together in groups. Living in groups is advantageous - amongst other reasons - because human offspring are so vulnerable after birth. Group-living arrangements enable the labour of raising children to be shared more efficiently and successfully. Social cohesion, however, is hindered by the fact of limited resources and the competition that this engenders. Large components of our moral codes seem obviously intended to facilitate social cohesion via, in particular, the constraint of aggression that can arise from such competition. It is plausible to suggest that morality – rather than being the product of specific biological adaptation -is the issue of human *decision* to control their social environment by means of implementing categorical rules. In other words, humans create moral rules themselves in response to what they perceive as being socially problematic, or advantageous.

3. ***Consequently, there are a number of moral rules that are cross-cultural, since the bulk of the problems that arise in human groups revolve around the universal problem of sharing limited resources amongst individuals. (Part One).***

The explanation summarised in (2) also serves to explain why there is a degree of commonality in cross-cultural moral codes. As humans all share a similar biological makeup, a core group of their needs are likewise going to be similar. Consequently, it might be expected that at least some of the issues that arise in human communities might be the same - like, for example, the issue of procuring enough food to survive, the issue of acquiring a mate and reproducing, the issue of having to procure both these in a way that is not going to provide too much disruption and contention amongst the rest of the group. The moral rules that are common to cultures throughout the world reflect some of these needs. Examples are moral proscriptions against stealing, cheating and killing and prescriptions encouraging certain forms of altruism, kindness and trustworthiness.

4. ***Cross-cultural moral variety can be partially explained with reference to the differing environments in which people live. (Part Two).***

The conclusion that moral rules enable groups of people to live together more harmoniously than otherwise supports the suggestion that moral rules may have been developed by people to serve this purpose in the first place. Taken as the *unique* explanation of why moral rules emerged, however, this account is unsatisfactory. In Part Two I explained why and began to address some of the "issues" a predominantly prosocial account of morality inadequately treats. I started with the issue of cross-cultural variety in moral rules and concluded that it can be partially attributed to the impact of varying environments. I suggested that as different environments give rise to different needs, the moral rules concerned with the satisfaction of these needs will likewise vary.

I also contended that the social environment – in particular the culture of one's social group - has a significant impact on the content of moral codes. Cultures represent, amongst other things, the collective beliefs of their members. These beliefs extend to issues that go beyond basic survival requirements and touch upon broader existential and metaphysical matters. The conclusions that we draw pertaining to the meaning and value of life, we seek to both protect and promote via a series of rules and principles. That these beliefs vary throughout the world can be attributed not only to differing geographical location, but also to the cumulative nature of human learning throughout time. The accumulated variation in beliefs, traditions and needs, then, helps explain not only why there is so much variety in moral codes throughout the world, but also why morality has gone beyond concerns grounded uniquely in matters of social cohesion.

5. ***Morality is the fruit of our ability to formulate, transmit and be motivated by a number of different rules that we consider to be categorically binding. These abilities derive from a series of evolved biological mechanisms. (Parts Two & Three).***

In Part One I concluded that moral rules are not the mere formalisation of specific biological propensities. While it is true that adaptive mechanisms might fuel our propensity to behave, feel and think in certain ways, the moral rules themselves

emerge from a number of different sources, or a combination thereof. For example, some moral rules are the product of human *decision* that they will or, more pertinently, "ought to" shape our behaviour; that is, there often seems to be a decision making process involved in the adoption of moral rules. So moral rules, while distinguishable from other types of rules, are nevertheless dependent on some of the same capacities required for not only the making of other rules, but also the transmission, learning and adaptation of these rules to changing circumstances. In keeping with my aim of explaining the origins and development of morality, I provided a brief discussion of some of these capacities. In particular, I focused on biological mechanisms involved in what I called "social learning", since social learning is what permits aspects of cultures and moral codes to become both entrenched and to spread. In particular I suggested that the human ability to reason and reflect is instrumental in the formation of moral rules, since it enables us to form intentions. The nature of one's intentions is central to deciding whether what one does has moral relevance. Reasoned considerations are thus not only pivotal in the formation of some moral rules, but they can also contribute to the belief that some actions, thoughts and characteristics are intrinsically right or wrong.

6. ***As the process of formulating, transmitting and motivating moral rules calls upon a whose range of different biological traits working together at times, and alone at others, it is not plausible to maintain that morality is the product of a single biological adaptation. (Parts Two & Three).***

In Part Two, I discussed the ways in which the capacities for language, imitation and learning contributed to the formation and transmission of moral codes. In Part Three, I focused on the role that both the human affective system, and our ability to reason and reflect, play in generating moral concepts. These capacities were compared to equivalent capacities in other animals in a bid to (A) explain why we might be reluctant to call their social regulatory systems "moral" systems, and (B) to pinpoint which specific capacities are responsible for the generation of this difference. Recalled also was the fact that these capacities are the product of biological adaptation, a point which serves to emphasise two of the major conclusions of this

thesis. The first major conclusion is that morality is the product of a number of different, independently evolved adaptations. As such, it is not appropriate to call morality itself a biological adaptation. Secondly, discussing the role each of the different capacities plays in generating moral rules, beliefs and concepts serves to underscore the *biological basis* of morality. This basis, in turn, contributes to evidence that morality is human dependent and not the expression of some objective entity that exists independently of us. Contributing to this secondary conclusion is the argument that the adaptive mechanisms involved in the generation of moral rules were not selected for the role they played either in forming moral rules, or revealing their "truth". Indeed, many of these mechanisms were almost assuredly in place prior to the emergence of both culture and morality.

7. ***That moral rules are often perceived to differ from other rules is because they are (mistakenly) believed to derive from objective, mind-independent moral facts – as such they are considered true not just for ourselves, but for everybody. This belief provides motivation to uphold moral rules for many people and as such is a core feature of morality. (Part Three).***

In Parts One and Two I discussed moral rules in a way that rendered them almost indistinguishable from any other type of rule that a society formulates. Moral rules, however, are distinguishable from other types of rule in terms of the reasons given for adhering to them. Most rules, for example, are usually instrumental in achieving some practical end result; moral rules, on the other hand, are prescribed because they are considered to be *intrinsically right or wrong*. They are the formalisation of the belief that there are certain thoughts, characteristics and actions that are appropriate (or inappropriate) not with respect to their consequences alone, but because these consequences themselves correspond to objective standards of right or wrong. As such they are not usually held to be right and wrong just for ourselves, but for everybody. An account of the origins and nature of morality must provide an explanation of these moral concepts as well. .

8. ***Our tendency to make moral judgements that we consider categorically binding is not, contrary to the suggestions of Richard***

Joyce, the product of a biological adaptation. Rather, it is the product of a number of different biological traits in combination with a range of environmental factors. In particular, our belief that the moral judgements we make are categorically binding springs from or is reinforced by a number of different sources including (A) inculcation by one's social group (B) emotional experiences of an intrinsically pleasurable or painful nature, and (C) rational reflection. (Part 3).

In Part 3, I discussed the emergence of moral concepts, focusing in particular on why we believe that moral principles are categorically binding. To begin with, I discussed a causal link between this belief and our socialisation. Firstly, punishment and reward systems were investigated to see what role they might play in fostering belief in the concepts of moral "right" and "wrong". I concluded that such systems might contribute to belief in moral concepts as a part of the general process of socialization one receives as a child. As children we often come to believe that significant amounts of what we are told by our parents, teachers or general society is true, whether it is reinforced with punishment and reward or not. It is for this reason that social learning is central to the development of certain of our moral rules.

Socialisation and enculturation are by no means the unique source of belief in moral concepts, as evidenced by the fact that aspects of personal moral codes are often at odds with the local moral code. Further explanation was thus deemed necessary. In Part One, I discussed the possibility that moral rules are the product of adaptive mechanisms selected to ensure that certain types of behaviour are either avoided or embraced. I concluded that morality is far more complicated than this. What I did acknowledge, however, was that certain adaptations might *contribute* to our belief that certain actions are right or wrong. Kin recognition systems, for example, may lead us to feel drawn to some (notably kin) and repelled by others. While these mechanisms alone do not "explain" the existence of moral rules that encourage kin altruism, they may nonetheless contribute to our belief that, for example, we ought to be kind to our children, by making us feel positively inclined towards them on a physiological level.

These points complement the argument I presented in Part Three. Here I reasoned that the human emotional system is a major source of our moral concepts. In particular the experience of empathy was given a central place in this explanation. Empathetic reactions lead us to care about the welfare of others in part via the distress that the misfortune or suffering of others might create in us. We express our concern via the moral rules that we embrace. I also suggested that these reactions engender the *experience* that some situations are "right" or "wrong": as such, moral concepts and the rules to which they give rise are partially the expression of the intrinsically positive or negative experiences of pleasure and pain.

In the same way that I suggested that other biological mechanisms implicated in the generation of morality did not evolve for this purpose, I maintain that the human affective system likewise has other adaptive significance. The mechanisms involved in generating empathy, for example, were most plausibly selected for their role in assuring the bonding of caretaker to offspring. Others, such as disgust and repulsion, are most likely to have been retained because of their biological utility in alerting us to unclean, unhealthy and hence unsafe objects.

Finally, I suggested that sometimes our moral principles – and our belief that they are categorically binding - are derived from a process of rational reflection and reasoning. It is in this way, for example, that we often come to discard moral principles that we are taught as children and adopt others. I might have been told as a child that it is immoral to have sexual relations before marriage, but may decide later that there does not seem to be any good reason for this and therefore abandon the moral rule. Sometimes reason may lead us to override what we feel emotionally drawn to doing (for example, giving a promotion to our favourite nephew rather than to the hardworking employee who has actually earned the promotion), but they more frequently seem to work in tandem (the guilt I know I will experience in giving my nephew the promotion may lead me to choose otherwise, as well). I also suggested that sometimes we may employ moral "reasoning" as a means of explaining, or justifying our emotional experiences to others in a way that adequately expresses

their strength. My instant reaction to scenes of torture is of deep horror; a subsequent process of rationalisation might lead me to conclude that what I saw was not just horrible, but intrinsically wrong. This judgement expresses not some perception of objective truth, but rather my emotionally fuelled conviction that torture should never happen. The process of rationalisation, however, transforms this essentially subjective experience into a response to what one considers to be the transgression of an objective moral rule.

Part Three, in sum, explored a series of different factors that contribute to our belief in moral concepts such as right and wrong and the motivation to which these beliefs give rise. Together, they provide a plausible explanation for moral motivation and belief in moral concepts that does not require us to appeal to such things as mind independent moral facts. They also do not require an appeal to specific adaptations which account for our "tendency to make moral judgements" (Joyce) or which account for our "belief in the objectivity of morality" (Ruse). These are some of the major conclusions I have sought to establish.

9. ***While we might believe that moral rules derive from objective, mind-independent moral facts, we are mistaken in doing so. This claim is supported by the fact that the sources of this belief do not require the truth of moral rules to explain why we believe them (Part Four).***

This conclusion is partially derived from evidence that without certain of the capacities that I contend are responsible for the fact that we have morality, the ability to form moral rules - or to differentiate them from other rules - is impaired. More importantly, however, I have argued that the biological selection of these capacities had nothing directly to do with their contribution to either the generation of moral rules or, the belief that our moral rules are categorically binding. This suggests that morality in terms of a set of rules, attitudes and concepts is incidental to having these capacities and could not exist independently of the individuals that have these capacities. It does not prove that mind-independent moral facts do not exist, however. Yet when this evidence is combined with an account of (A) the social

utility of morality and (B) the mutability of morality, the argument for objective moral facts seems far less tenable. Instead, we have an account of morality which explains both its development and perceived nature in a more plausible way, and which is supported, moreover, by empirical evidence.

10. While belief in objective mind independent moral facts is erroneous, this does not entail that we should eliminate moral concepts or rules. Moral concepts and rules express, promote and protect what we consider to be deeply important beliefs, needs and desires. If morality can be redefined to exclude reference to moral facts and to include considerations such as these, it regains an important role. (Part Four).

In Part 4, I briefly discussed the metaethical status of morality. I concluded that belief in objective moral truths is erroneous. I did not, however, take this to require the rejection of morality, nor the retention of morality as a mere "useful fiction." Rather, I suggested that we needed to redefine morality in such a way that recognises the role it plays in protecting our most deeply felt values, and in recommending these values to others.

11. It is highly unlikely that other animals have morality. (Part Four).

In the last chapter of Part Four I claimed that it is very unlikely that other animal have rules of a moral nature. I based this claim on the observation that other animals do not seem to have the cognitive machinery required to form moral concepts in the first place. Also, it is unclear whether other animals possess a theory of mind which would enable them to form prescriptive rules based on a consideration of others goals and intentions. These conclusions are by no means definitive. Our fundamental lack of hard evidence regarding the neurological capacities of other animals means that we can only offer hypotheses and that these are often contentious. Moreover, it is unclear that even if we did understand their neurology better we would be able to make justified comparisons between ourselves as humans and them as other animals.

General Conclusion

Morality is central to the way in which we conduct our lives, guiding and shaping our relationships, professional decisions, goals and aspirations. In spite of the apparent ease with which we seem to acquire certain moral beliefs, morality itself is nevertheless something which for many of us remains deeply puzzling. For some moral quandaries may not go beyond the difficulty of applying well-established moral principles to a myriad of changing circumstances. Others are troubled by more fundamental questions regarding the origins and nature of these principles, as both this thesis and a long, rich history of philosophical enquiry and debate testifies.

My aim in writing this thesis has been to provide plausible solutions to some of the more puzzling questions which arise from considering morality as the product of human biological evolution. As I have provided a detailed synthesis of my proposed conclusions, it is unnecessary to discuss them in detail once more. Instead, a brief re-statement of them will conclude this thesis.

Firstly, my thesis has been primarily concerned with demonstrating that morality is the bi-product of a number of evolved traits that were selected for fitness enhancing benefits which have nothing directly to do with morality. Amongst the traits discussed were those that contribute to, and were most probably selected for, what has been termed "social learning"; the abilities to imitate, recall, reason and communicate were amongst the capacities mentioned in particular. In liaison with these capacities, are those that induce emotions such as sympathy and empathy in us. I argued that these emotions are central to the experience of moral rules as categorically binding, a core feature of morality. I also claimed that the *content* of our moral codes is importantly shaped by the environment in which we live.

Secondly, I offered an account of moral rules in terms of their contribution to social cohesion. Here the question "why do we have morality?" was answered partially by

the postulate that moral rules enable us to live together and partake of the benefits that co-existence endows. Principal among these benefits of coexistence, of course, is survival. I argued that the values underpinning many of our moral rules are the product of both individual and group based decisions about what is of value. I also contended that such rules are often made in response to the absence of biological mechanisms which shape our behaviour in a more deterministic way. It is our biology, however, which has afforded us the behavioural plasticity that enables us to do this. In other words, while the "dogma" may have gone walking, it has not escaped the leash.

More importantly, however, I concluded that morality is the product of both conscious and sub-conscious attempts to give some kind of external sanction to our beliefs, instincts and desires. Some of these have little if anything obviously to do with evolutionary ends, but are nonetheless considered to be of utmost importance. I have attributed our belief that they are of such importance to a combination of emotional response, rational argumentation and social indoctrination. The subconscious, intuitive like nature of some of these processes combined with the strength of the convictions they generate contributes to the belief that these convictions correspond to some kind of objective truth. I have made the claim that there is no such thing.

Finally, I have provided an explanation for why and how it is that we have morality which is in keeping with some of the latest scientific evidence concerning both the evolution and nature of human beings. This in itself is not sufficient reason on its own for its acceptance, of course. The fact that I have also provided a plausible, comprehensive account for both the origin and nature of morality that does not require any appeal or reference to non-empirical qualities, features or beings, is very much in its favour. As such, not only is it more parsimonious, it is also more credible.

Gathering up these various points, I conclude that my thesis provides a valid explanation not only for the possible origin of morality, but also for how it came to develop into what it is today. I have provided an account of the prescriptive nature of morality via an excursion into of the various sources of motivation for behaving morally. I have offered an explanation of our belief in the factual nature of moral concepts which does not require appeal to mind-independent moral facts. Other philosophers have provided similar accounts. The significance of my thesis, however, is that I have provided a more integrated representation of both morality and the evolutionary processes which are pivotal to its origin and perpetuation.

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